



Access, use, and regulation practices in Lower Silvermine Wetland. Fish Hoek Cape Town

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ABSTRACT

A political ecology approach was taken in explaining the context of resource use. Political ecology seeks to understand politics about nature. Where access and regulation practices are political tenets within the commons issue understudy in Lower Silvermine Wetland. Hence they are resources held in commons within the Lower Silvermine Wetland. Where there are multiple users with different claims and interest. The ability to derive benefits from resources known as access is essential as it helps in understanding the perceptions and relation of users to the wetland. Within the two concepts of political ecology and access, it sought to locate and situate access into the Lower Silvermine Wetland by focusing on users use, regulation by authorities and nature. Nature users derive benefits from the Lower Silvermine Wetland. This is shown by the way they relate, use, and perceive the wetland. User access is pivotal to the study as it shows what the Lower Silvermine Wetland means to different users. Therefore nature means different things to different users, and this determines the way they use the wetland.

The other part of the study becomes significant because as much there is access into the Lower Silvermine Wetland, regulatory measures are in place to prohibit users from doing other forms of activities into the Wetland Lower Silvermine Wetland. This is controlled through permissible and non-permissible operations that have been put in place by authorities that regulate and control the commons area understudy. It is of concern that some regulatory measures have caused deprivation of access, and some have been weak that an enhancement in regulation should be considered. Access into the Lower Silvermine Wetland has led to a lot of misunderstanding between users and authorities. These misunderstandings are a result of use, regulation, and maintenance. It is important to note that everyone has the right to access wetlands, according to the South African Constitution. This is important to the study as every user has the right to access nature without restriction as long they don't break the control measures. This will lead to conserving plant and animal diversity also to ensure access is derived without any safety or security threat. At the same time if regulation and control is followed it will lead to a good user nature relationship. Hence ensuring that authorities understand each other and maintain the Lower Silvermine Wetland. Therefore the study becomes pertinent in establishing implications of regulatory practices in the Lower Silvermine Wetland.

LIST OF ACRONYMS

City Parks: City of Cape Town Parks and Recreation

CoCT: City of Cape Town

CPR: Common Pool Resources

DAFF: Department of Agriculture Forest and Fisheries

DEA: Department of Environmental Affairs

DMP: Disaster Maintenance Plan

DRR: Disaster Risk Reduction

MMP: Maintenance Management Plan

MPRDA: Minerals and Petroleum Resource Development Act

NEMA: National Environmental Maintenance Act

NWA: National Water Act

PES: Payment for ecosystem Service

SANBI: South Africa National Biodiversity Institute

SAPS: South Africa Police Service

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Chapter One: Introduction

1.1 Introduction

People's access to natural spaces is essential. Sociologically who regulates that access and who gains and loses access to natural commons such as the Lower Silvermine Wetland is critical. The study examines the role of authorities in regulating, controlling, and managing natural resources with a particular focus on the Lower Silvermine Wetland. The primary aim of the study was to examine the regulatory practices of authorities, and in turn, how these authorities control people's access to the area. The first part of the study sought to understand different users' perceptions and knowledge about the Lower Silvermine Wetland, how they relate to it, and how they use it in different ways. The second part of the study focuses on how the authorities regulate and control users' access to, and use of the Lower Silvermine Wetland. In this case, regulation is made by stipulating permissible and non-permissible activities on the site. The Researcher sought to understand how people use the wetland area despite being bound by regulations that have been imposed on the Lower Silvermine Wetland, which is an open space, therefore it should ideally be readily accessible to residents of City of Cape Town (CoCT), mainly those that reside in the surrounding neighborhoods of Clovelly and Fish Hoek

In understating the oversight role of the authorities in controlling people's use of the Lower Silvermine Wetland, discussions are located in the broader concept of political ecology which seeks to explain the politics of nature. Access, according to Ribot and Peluso (2003), refers to the ability to derive benefits from things, where regulation practices are political tenets within which commons issues were studied in Lower Silvermine Wetland. Resources within the area have multiple users, and their access is regulated through permissible and non-permissible. Regulation of access for Lower Silvermine Wetland is made mainly by City of Cape Town Parks and recreation (City Parks), Fish Hoek Council, Stormwater and Law enforcement.



Figure 1 shows the name and a view of the Wetland under study.

1.2 Background

This section discusses the context of the study by providing some of the available information about the Lower Silvermine Wetland. According to an Impact Assessment report by Anchor Environmental Consultancy of (2016) the Silvermine, Estuary is fed by the Silvermine River which has its source in the Steenberg Mountains of the Cape Peninsula. The river drains a catchment approximately 21 square kilometers. Several small seasonal streams join Silvermine River coming off the surrounding Steenberg and Kalk Bay peaks. The river drains south-east off the mountain, passing through Silvermine valley and eventually entering the sea at Clovelly.

The major part of the catchment consists of the Silvermine Nature Reserve and so remains relatively flourishing with vegetation. In the lower reaches of the river, it passes a golf course as well as the built-up areas of Fish Hoek and Clovelly. Here several stormwater drains empty directly into the river. The river passes under a road and railway bridge before widening into a lagoon approximately 60 m long and 20 m wide. Naturally, the river and lagoon would have been allowed lateral movement in response to differing mouth condition; however, these are now restricted by human-made barriers.

Anchor Environmental Consultancy (2016) quotes Heydron and Grindley (1982) who state that there was no aquatic vegetation recorded in the Lower Silvermine Wetland. However, Heydron and Grindley (1982) noted that there was some seasonally inundated vegetation in the immediate surroundings of the estuary, consisting of marram grass and other dune shrubs. Along with parts of the river and in the Lower Silvermine there are vast stands of *Phragmites australis* reeds. Behind the road and railway bridges, the vegetation surrounding the Lower Silvermine Wetland was a mix of low dune shrubland, and much of the area is invaded by *Acacia saligna* and *Acacia cyclops*. City of Cape Town (2014) noted that since the rehabilitation of the Lower Silvermine Wetland, much of the alien species have now been removed. Some of this is shown in the figure below:



Figure 2 Plant species found in the Wetland

Silvermine Estuary is not monitored as part of the Co-ordinated Waterbird Counts. This is likely because of the small nature of the estuary and the high degree of a disturbance taking place immediately adjacent to the estuary making it less habitable for water birds. As early as 1982, approximately 29 species of birds were recorded in the vicinity of the estuary, and 137 in the broader area including the river and beach (Heydorn and Grindley 1982). The figure below shows some of the animal species which are found in the Lower Silvermine Wetland.

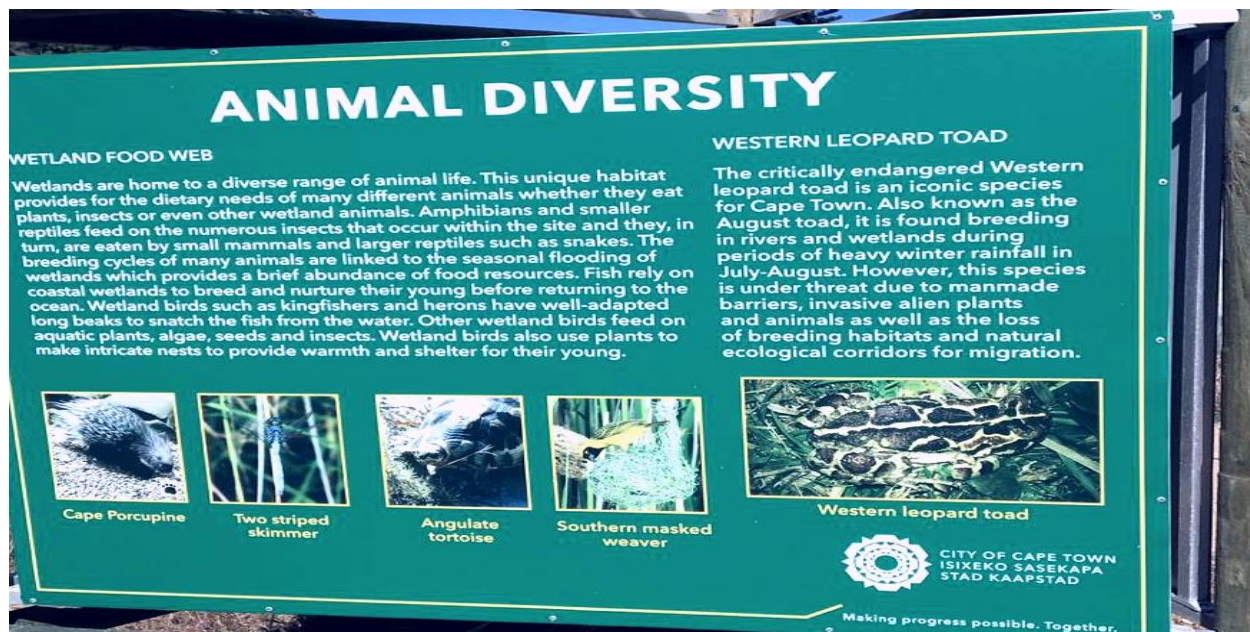


Figure 3 showing animal fauna species found in the Wetland ecosystem.

Urban and peri-urban development in the lower Silvermine River has resulted in moderately high nutrient levels (ammonia and phosphates), which reduced habitat integrity. This has resulted in changes to the aquatic invertebrate communities and the goods and services (conservation) that the river provides (DWAF, 2005).

Flooding became an issue, especially in the lower reaches of the Silvermine River in the region of the Clovelly Country Club and downstream. A flood maintenance scheme has been undertaken in three consecutive phases by the CoCT. It started close to the sea and moved progressively upstream: Phase 1 from the Main Road to the first gabion weir, Phase 2a from that point to the second gabion weir and Phase 2b the final section to the electricity pipe bridge. Preliminary work started in November 1998, and significant construction on Phase 1 commenced in 2000. The final result was an attractive asset, used by increasing numbers of walkers and home to about sixty bird types. Thousands of indigenous plants which provide an ideal habitat for birds, insects, animals, and reptiles were successfully established around the Lower Silvermine Wetland. It is also a breeding ground for the Endangered Western Leopard Toad and is frequented by Cape Clawless Otters, explains Day (2015)

(Southern Waters & Erica v/d Honert Consulting, 2000a, Day, 2015) state that flooding and fire are linked and should be seen as a related threat to the Silvermine River. An example is a fire

which occurred on 17 June 1992 and destroyed about 675 hectares of vegetation in the Silvermine Nature Reserve in the central catchment of the Silvermine River. Due to the loss of vegetation cover, the risk of severe flooding in lower Fish Hoek and Clovelly in the rainy season was significantly increased. It was estimated that because of the fire, the flow volumes in the river could be as much as 25% to 40% higher than before. The extensive housing and road development exacerbated the threat in areas which had previously acted as sponges and aquifers. Another more recent example is the fire in the Silvermine Nature Reserve in March 201, which led to the closure of the Reserve for many months. It only opened again in 2016. Increased erosion and sedimentation of downstream areas is also expected to occur as a consequence of the fire in the catchment.

Although alien or invasive vegetation clearing has taken place in the upper and middle reaches of the Silvermine River, garden escapees and remnants of removed aliens (seedlings and re-sprouting plants) pose a threat to its habitat diversity, the recovery of indigenous vegetation and aquatic life (DWAF, 2005; King et al, 2003). Invasive plant species utilize more water from the rivers and out-compete the endemic species. The alien or invasive plant species also contribute to the instability of the river banks. This facilitates the understanding of how plant growth without being maintained can be a threat to nature users' access.

1.3 Statement of the problem

The study sought to understand how different users with different interests use the Lower Silvermine Wetland. Furthermore, different users hold different perspectives about what the wetland represents. The study sought to document these interests and views and how, in turn, these users use the Lower Silvermine Wetland. There are different claims, and there are different ways of utilizing it. Therefore, users' different interests lead to different outcomes from their access and use of the Lower Silvermine Wetland. It is significant to different users. There are therefore two aspects that need attention, the first one being how people use and relate to the Lower Silvermine Wetland, and the second being a look at the authorities' points of view on how they regulate and control the users' access and how they do so.

The study covered two main issues the first one is to understand the relations, perspective and knowledge of nature users towards the Lower Silvermine Wetland and the second one being the authorities' perspectives on how to regulate access. MacPherson (1978) explains the study of

access as concerned with understanding the multiplicity of ways people derive benefits from resources. Once the benefits from these resources are identified, individuals, groups, or institutions gain, control, or maintain access within particular political and cultural circumstances Peluso (1996). There is also a need to understand the underlying mechanisms of access involved in instances where benefits are derived from access.

The study understood how the authorities such as City of Cape Town Recreation and Parks (City Parks), Stormwater, Law enforcement, Fish Hoek Council under ward 64 regulate peoples' use and access of the Lower Silvermine Wetland. In most countries, natural resource maintenance engages local authorities as they assist in monitoring and maintaining the natural environment by relevant legislation, policies, plans, and programs (White and Hackenburg 2012). Regulatory practices determine who accesses the natural environment when they can, and under what circumstances they should access it. It is also significant to understand that nature itself is perceived differently by different people. This enables one to understand different users' knowledge, perceptions, and usage of the Lower Silvermine Wetland. Such an understanding also enhances the appreciation of relationships between users on one end and the river and wetland on the other end. It will lead to outcomes and consequences of the different uses of the same environment by the various users of the Lower Silvermine Wetland. It is therefore essential to have a clear understanding of the regulatory practices and how they can either be of benefit or disadvantageous to both the environment and its various users.

1.4 Research aim

The principal aim of the study is understanding how various users use Silvermine and how use and benefit are regulated.

1.5 Research objectives

1. To examine users' perceptions, knowledge, use, and relations with the Silvermine Wetland
2. To examine the role of authorities in regulating access to the natural environment with a particular focus on Silvermine Wetland.
3. To assess how the role of authorities affect different users' access to and claims to the Wetland

1.6 Research questions

1. What are the users' perceptions, knowledge, use, and relations with the Lower Silvermine Wetland?
2. What is the role of authorities in regulating access of the natural environment with a particular focus on Lower Silvermine Wetland?
3. How does the role of authorities affect different users' access to and claims to the Wetland?

1.7 Justification of the study

The present study is an important one for scholarship about the study of commons and access issues in conservation areas. This is important in that it helps us to understand problems that arise between users of nature and the regulators of nature. Such questions, if not addressed, will affect the environment. The study also sheds light on how aspects of nature, such as Fauna and Flora, contribute to nature users' access to the Lower Silvermine Wetland for recreational purposes. The study is also vital to the CoCT, Local Council (Fish Hoek), City Parks and Stormwater because it can serve as a contribution towards the development of frameworks for the City, policy formulation for CoCT and Ward 64 Council which the Lower Silvermine Wetland is situated in. These policies will be implemented to ensure that problems that arose from the study will not occur in the same place or another similar setting. To local users of the Lower Silvermine Wetland, the study adds value regarding how nature users contribute to the knowledge of the wetland since they have direct relations to it. Such knowledge would be a useful contribution towards the formulation of regulatory measures that are aligned to how users interact with and relate to the Lower Silvermine Wetland. The study brings to light perspectives on regulatory practices relating to access to the wetland as no study of a similar nature has been done on the Lower Silvermine.

1.8 Methodology

1.8.1 Research design

The study used qualitative research design which allowed the researcher to record interviews on subjective nature experiences of research participants. A major tenet of this qualitative research design which made it suitable for the current study was the usage of a small sample of participants and the focus on the interpretation of participants' responses as alluded to by (Neuman, 2006). The qualitative design was relevant to this study as argued to enhance the principles of originality or

naturalism that are based on insider perspectives, including thick description (Babbie & Mouton, 2001). Naturalism entailed that interviews were conducted in original spaces such as workplaces and homes. Insider perspectives, on the other hand, resonate with naturalism because interviews conducted in a natural setting assisted the researcher to observe and interpret non-verbal cues during interviews. The inclusion of thick descriptions in this qualitative design was vital, and it came in handy because they allowed the participants to elaborate on their responses.

The study is investigative where it is looking at who determines and regulates access. Therefore the use of the qualitative research methodology. Qualitative research methodology has the unrivaled capacity to constitute compelling arguments about how things work in particular contexts (Mason 2002). More than that though, while not all qualitative researchers are on a mission to produce ‘the general picture’ of how things work, the qualitative habit of intimately connecting context with explanation means that qualitative research is capable of producing very well-founded cross-contextual generalities, rather than aspiring to more flimsy de-contextual versions (Ibid).

1.8.2 Respondents selection

The sample population for the study was drawn from (1) users of the Lower Silvermine Wetland, both from Fish Hoek and Clovelly suburbs or anyone free to use the Commons area and (2) from the authorities that help in the maintenance, control, and protection of the Lower Silvermine Wetland. For the first part of the study, five respondents were users that have direct access to the Silvermine in the upper reaches of the river and the Lower Silvermine Wetland. For the second part, five informants were authorities that regulate, maintain, protect, and control the Lower Silvermine Wetland either on a day-to-day or seasonal basis. Altogether the above mentioned made up a sample size of ten.

The purposive sampling technique was applied to come up with a sample that is representative of targeted users involved in the maintenance and protection of the Lower Silvermine Wetland. The study sample was selected through people identified by the councilor who have the expert knowledge of using and regulating the Silvermine. According to Kitchenham and Pfleeger (2002), purposive sampling is a non-probability sampling technique used mostly in qualitative research. The major discretion here is the study’s purpose as set out in the objectives. This procedure

involves the researcher employing what is known as the expert's choice, whereby the researcher considers the main aim of the study to select who may be appropriate to participate in the study.

1.8.3 Selecting the case study

Choosing the Lower Silvermine Wetland conservation area as the case study site was a decision made as part of a broad research project that this present study falls under. The decision to study the regulation of access for the sake of the users and the nature reserve informed and complimented similar projects within the broader project. The Lower Silvermine Wetland is a conservation area used for recreational and leisure purposes. It is also a space for fauna and flora growth and habitation. Furthermore, as literature will show in the following chapter, users derive benefits from accessing resources in various ways where regulation has to be done to strengthen some hindrances to accessing a resource.

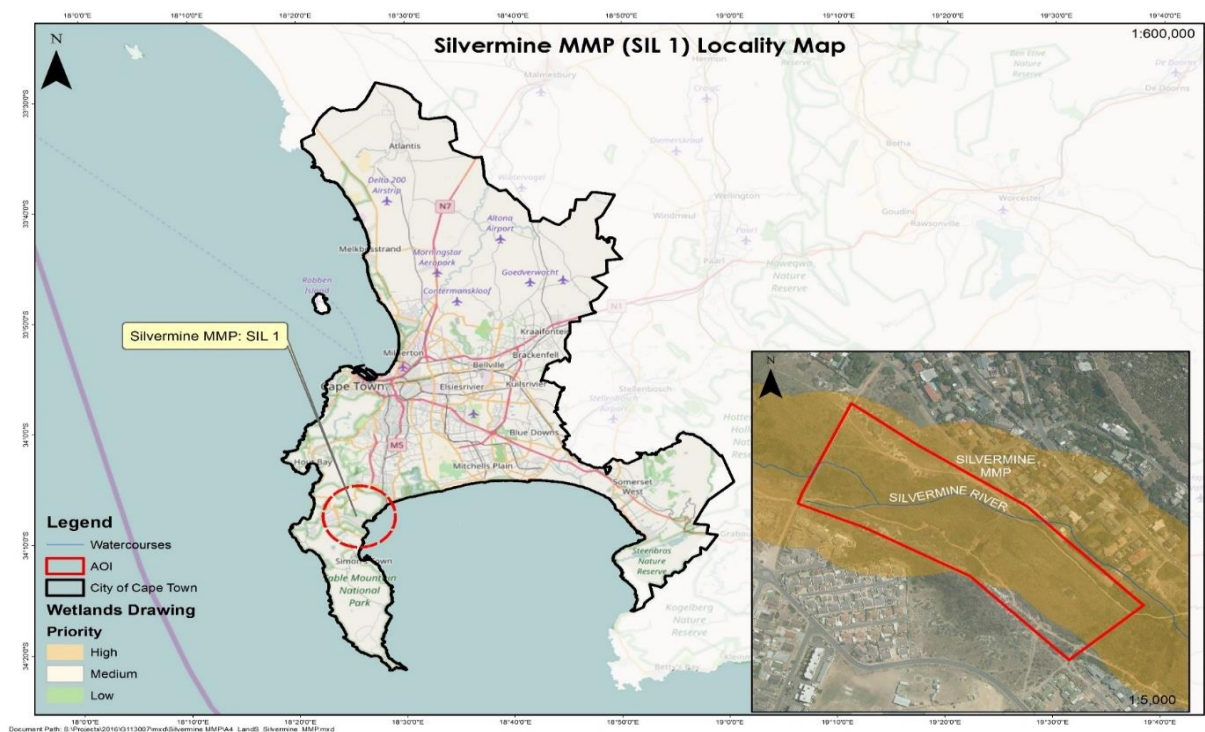


Figure 4
Location of the Lower Silvermine Wetland Maintenance Plan for Surface Infrastructure MMP Name: SIL 1 Silvermine River MMP 14-08-2017_V1.docx

1.9 Data collection

This section discusses the data collection strategies and tools that were used in the present study.

1.9.1 Secondary data collection

The researcher conducted semi-structured interviews, which consisted of open-ended questions. The data collection process was conversational and informal, as explained by Marshal and Rossman (1999). It was pertinent for the interviewer to make immediate follow-ups or seek clarification on details as they came up. The interviewer could also observe and interpret non-verbal cues. Existing documents which were gathered to add to the richness of the study include reports, minutes of meetings, speeches, and published articles and journals.

1.10 Analysis of data

The primary aim of the data analysis process was to make sense of the subjective experiences of the research participants, at the same time establishing a foundation for deriving insight into proposed solutions for improving the situation, categorically, at all levels of society. This would be namely: between the users, between authorities and between users and authorities. Babbie and Mouton (2001) recommend that analysis be done in accordance to the study objectives to enable the researcher to draw conclusions which reflect the ideas, theories, and interests that initiated the research and inquiry. Data in the form of interview transcripts and notes were analyzed by the researcher using Tesch's 1990 approach to qualitative data analysis. The following "Ten steps" were followed:

Reading through all the interview transcriptions; chose one interview and understood the responses in relation to the research objectives; made notes close to the text that explained, described or raised questions; used coding system to label and link identical notes in colour; the above process was done with all of the transcriptions and re-evaluated the labels as they could change within the same process; labels were grouped into themes, categories and sub-categories, with the main priority on research objectives; the schema created was then used to develop a framework for analysis (with labels, themes, and categories); findings from the interviews were written in collaboration with the context; within the discussion, actual quotes assisted in linking themes; Data was then linked with results from the literature review.

1.11 Thematic analysis summary about the study

The study employed a thematic analysis approach by the suggestion by Riessman (2008), which stipulates that the researcher should rely on the data as well as a theoretical background to

formulate themes from the narrative. The analyzed data is presented according to themes related to the subject area under study. Each of the themes is presented in chapter four of the study. The thematic analysis identifies a hidden pattern in the data. The most recurring pattern will be vital to answering the research question and therefore, essential in the construction of the themes. The thematic analysis involves pinpointing, identifying, and recording common patterns of meaning across a data set. To highlight the major premise of this study, evidence from the rest of the world and Sub-Saharan African region is going to be outlined in the literature section of the paper. The paper will then make a precise and thorough investigation of the access implication of regulatory practices about user access and the maintenance of the Lower Silvermine Wetland from the perspectives of different users, based on their use, knowledge, and perception of the conservation environment under study and what results therein.

1.12 *Credibility*

Credibility is critical in establishing the trustworthiness of the study; it gives confidence in the study. (Shenton, 2004). Shenton (2004) further recommends that research should maintain and preserve its credibility by keeping a focused line of questioning and providing the opportunity for prolonged interview interactions and engagements. Prolonged communications and engagement give respondents a chance to explain their views in-depth. Such detailed responses usually allow participation to add on some further information which they think is relevant to the study.

1.13 *Reflexivity*

Access and maintenance issues are currently one of the major global issues which the world is grappling with within natural environments be it human-made or not. However, there has been generality in this issue without considering the subjective experiences of people who maintain and regulate the access and those who access the Lower Silvermine Wetland. Therefore, there is a need to understand users' knowledge, usage, and perceptions of it and how the authorities maintain the Lower Silvermine Wetland and regulate access if need be. This would be vital for the crafting of policy that does control or not regulates access.

1.14 *Ethics*

It was the right and duty of the researcher in this present study to ensure that the research complied with the ethics relevant to this study. This research was approved by the Faculty of Humanities' Department of Sociology and the following ethics guided the study:

1.15 Informed consent and voluntary participation

Participation in the study was voluntary. It was formalized by giving every research participant a letter of consent to participate in the study. The letter stipulated that they have the right to withdraw from the research if they wish to do so. The participants only signed the form if they felt comfortable to do so. They all received a copy with the researcher's contact details on it. De Vos (2009), states that it is the researcher's responsibility to ensure that the participants fully grasp and understand the information on the details of the study before consenting. This information included: the goals of the present study, the period of participants' involvement, procedures that were to be followed, the possible advantages and disadvantages of participating, including dangers that participants could face. This process allowed participants to make informed decisions concerning their participation.

1.16 No harm to participants

From the researcher's perspective, it was an obligation to make sure that the research would not cause any injury to participants, despite them volunteering asserts (Babbie & Mouton, 2001). According to Babbie and Mouton (2001) harming participants becomes more significant when investigating a vulnerable group in the society as was the case with one participant in the present study and also the current research being political. Therefore the researcher was aware of the obstacles that could come into play. If the study were not correctly handled, it would not protect participants from legal consequences emanating from the leakage of sensitive details that could incriminate the participants. The researcher was careful enough to adhere to ethical prescripts of confidentiality and privacy.

1.17 Confidentiality

It was the job of the researcher to intervene and protect the privacy of respondents by not disclosing their identities. In addition to ensuring anonymity as suggested by Marshall and Rossman (1999), the information which they regarded as sensitive would be kept confidential because they are not supposed to be forced to reveal information they do not feel comfortable to reveal. It is pertinent

to separate an individual's identity from their responses. Confidentiality in this present study was upheld by not asking for participants' identity numbers, names, or home addresses. The researcher took several steps to ensure the confidentiality of participants' information, as recommended by Babbie and Mouton (2001), reckon that privacy of participant's information should be prioritized in doing research through the use of pseudonyms or codes so as to label data rather than using actual names, and not to publish information that could expose participants.

1.18 Privacy

Research participants' right to privacy means that respect for their autonomy has to be observed, therefore protecting the participants and indicating so in writing on the informed consent document. The researcher's duty was to protect the respondent's privacy by not disclosing their personal information, such as their identities and addresses. There was a need to safeguard the confidentiality of the respondents when recruiting participants and collecting data. Due to the political dimension of respondents in this study, there was a cautious approach by the researcher to ensure that the process of recruitment and interviewing will not expose personal information aired and shared by the participants.

1.19 Limitations of the study

The study was sensitive as it interviewed officials who work for the government. Therefore, the researcher had to be careful by not playing into political biases such as the discrediting of authorities involved in regulating access in the Lower Silvermine Wetland. Establishing rapport and trustworthiness with some respondents was a challenge the researcher faced, for example, where one participant would have to apply to senior authorities in their organization to permit him to be interviewed. Also, the study failed to interview one principal authority of Silvermine.

One challenge that arose was when one of the participants did not feel comfortable to be recorded by a voice recorder; therefore, the researcher had to write down significant notes as the interview progressed. The respondents spoke in English, a language widely spoken across the globe, thus making it easier for the researcher to communicate (through listening, interpreting, and witting down notes) effectively. An added advantage was that the researcher is fluent in and highly engaged with the language. The only drawback of this process was that some of the crucial data

were lost in the sense that one cannot write down everything as it is said when conducting semi-structured interviews.

1.20 Thesis outline

1. Introduction and Methodology: this chapter consisted of the introduction, background, problem statement, research questions, objectives, and justification of the study and the thesis outline. Where the understanding of the research question focusing on how access is regulated in the Lower Silvermine Wetland and how users relate to it. The other part of the chapter focused on the methodology by looking at the choice of the research design, which was used in the study and providing reasons for that choice. The section further outlined the data collection process, sampling technique, data analysis approach, and ethical considerations that were followed. Reflexivity, as well as limitations that emerged during the process of the study, were also discussed. The presentation of the research followed the outline of the chapters below, with each chapter serving its purpose about the whole study.

2. Literature Review: this chapter discusses debates situated within the broader political ecology and access. In so doing, the study will bring to light, academic debates relating to the case in question using these concepts to inform the research.

3. Users' perceptions, use, knowledge, and relations with the Lower Silvermine Wetland: this chapter will provide details about the relationship between users and nature. Providing details about what quality means to them, how they access it and their knowledge and perceptions of the Lower Silvermine Wetland, that will help establish how authority's regulation is affecting their use. Themes derived from the user's narratives will assist in the discussions of this chapter.

4. Access and management in the Lower Silvermine Wetland: this chapter will focus on how authorities regulate and control the Silvermine through permissible and non-permissible activities. It also focuses on how they maintain it. It will also show the various contestations and problems that arise between authorities in maintaining and regulating Silvermine. Discussions on whether regulation should be enhanced or not will be brought out. In a bid to address users' concerns, themes derived from the narratives are going to form part of the chapter to bring out issues raised by authorities in control of the Silvermine.

5. Insights and conclusions: this chapter provides conclusions emerging from the study, looking at objectives that formed part of the study. Insights for users and authorities that are drawn from the study. These insights that arose from the study can be or might be of assistance to both the authorities and users in ensuring that the Lower Silvermine Wetland is maintained, users access the area without obstacles and authorities maintain and regulate it without affecting nature and depriving users access.

Chapter Two: Literature Review

2.1 Introduction

This chapter focuses on conceptual issues that informed the present study and legal frameworks that form part of the study context. The legal frameworks are derived from the Constitution of South Africa, while some are international conventions. This section will look at concepts that will explain the reasons why access should be regulated or not regulated in the Lower Silvermine. It also looks at how the authorities responsible in the maintenance of the Lower Silvermine, which is all-in-one a conservation area, nature reserve, and recreational place, protect and control and maintain the area. The use of theories in the current study assisted the researcher in gaining a better understanding of how users access the Lower Silvermine Wetland and what benefits they derive from it, as well as obstacles that hinder their access. Furthermore, the theoretical perspectives contribute to the understanding of authorities' regulation of access. Therefore, the nature of the adopted two theories helped the researcher to develop insights which address the concerns that surfaced from the study.

The study adopted the concept of access by Ribot and Peluso (2003) where access is seen as the ability to benefit from things. Access is concerned with relations among people, about benefits or values, their accumulation, appropriation, distribution, and transfer. This definition has some resemblances with the meaning of access according to the context of the property. Benefits are essential because people, institutions, and societies live on and for them, and clash and cooperate over them. Political ecology by Robbins (2012) was used as a concept in understanding resource use in the Silvermine. Whereby political ecology is about how spaces of conservation have become sites of conflict between human and nature relationships that will result in distinctive patterns of resource maintenance. In this case, the access concept and political ecology concept were motivated by the reasons why users access the Lower Silvermine Wetland and factors hindering access. At the same time, authorities' maintenance and regulation of the Lower Silvermine Wetland stands in the way of access; therefore, the inquiry into whether access regulation should be improved or not.

2.2 Conceptual frameworks

2.2.1 Political ecology concept

The concept focuses on the relationships between economic, political, and social factors with environmental issues and changes. Political ecology is different from apolitical ecological ideologies because it politicizes environmental issues and phenomena. There tends to be an integration of environmental, social sciences and political economy as noted by (Peet and Watts 1996) This comes into perspective in topics such as environmental conflict, degradation and marginalization, environmental identities and social movements, conservation and control, (Robbins, 2004). These topics result in a definitive behavior; where politics affects and structures resource usage. The matter is about who is involved and how they want the outcome to look like. This would include the views of Non-Governmental organizations (NGOs), local people, and the government of the occupied land, whereby they have to know the reason for their involvement. Are local people a contributing an asset to the area through their actions or they causing more negative environmental effects than positive ones? Are NGOs assisting in the situation and for whose benefit? What is the authorities' role, and where do they stand?

Political ecology and conservation

When assessing political ecology and conservation, there is a divergence of issues, especially when analyzing conservation through biodiversity in conjunction with the creation of conservation units. Political ecology refers to a diversity of conceptual and methodological approaches to socioecological relations that share a common interest in questions related to the politics of natural resource maintenance, access and control, environmental knowledge, and their interactive effects on livelihoods and environmental change dynamics.

The struggle to govern commons

African states have to ensure a future approach through the maintenance and distribution of shared resources. Therefore governments must deal with issues surrounding access to land, such as boundaries and rights within commons. Thus the study will elaborate on how some users are not aware of their borders and believe that they own part of the River that is controlled by the authorities. The government, in turn, should be assertive in satisfying its citizens, through initiating and formulating appropriate policies that work within the context of resource availability and

management. Effective governance will lead to resource monitoring and sustainable use. Thus to allow for attention on rates, change in resources use, population, technological, social, and economic conditions are to be reasonably and carefully moderated. At the same time, authorities should keep local communities satisfied by holding significant rights to commons. This is one area that the authorities involved in maintaining and controlling the Silvermine are failing as the study will allude to. We see dilapidation of infrastructure and dense vegetation which users are not satisfied with. If noted and fulfilled, this would ensure legitimacy for the communities' use and their rights would be observed by having control in decision making. Also, aliens to an area must not be allowed to manipulate and force communities for common resource use. However, it is never that clear off, since the African government's face increasing pressure that emanates from the need for rapid economic and developmental profitability, overlapping rights, and ownership problems. This is further exacerbated by global pressures that are brought about through structural adjustment programs.

Securing commons

Governments have to tackle challenges and complexities to manage commons since commons are crucial to social, economic, and political success. In the case of common pools which are natural resources that deduce their existence from wasteland and dry land. Various groups use these within and outside a geographical boundary or a state due to a plethora of reasons. The study will shed light on the view that everyone has the right to nature in the Countries constitution. Thus to say they are not used towards businesses and livelihoods alone, but also for religious, cultural, and indigenous knowledge systems. Therefore it leads to the belief that the value of land should be by all these factors. Securing of commons and their successful management should be achieved through policies. Policies have been associated with negative implications in different states in Africa, especially about centralized authority and delegation using a top-down approach. Certain states are very rigid in recognizing the full capitalization of commons before decision making. At the same time, individuals are given hope over groups for the usage of commons, and this undermines the existence of commons. The study will establish the reality that, there is a need to achieve the right policy frameworks for solving problems associated with control and maintenance of the Lower Silvermine Wetland.

An institutional approach to self-organization and self-governance

The undermining of commons by individuals is common. It is essential to study individual or sole exploitation and how this individualistic mindset manifests. Commons focus on interdependence, while other groups focus on independence. Therefore this situation comes in the context of having too many land appropriators in an area. In the case of Silvermine, the study ought to shed light on how certain users assist in the protection and maintenance of the Lower Silvermine Wetland while some independently focus on what they gain from it. By so doing, theories such as the firm and state theory led to the formulation and implementation of policies that will fix such problems. Where state theory specifies that; the ruler must recognize that sustainability benefits can be obtained by the organization of some activities that unify people and enable them to share a shared pool of resources in a manner that does not amount to competition within commons. The firm theory, however, requires land appropriators to realize the opportunity to increase returns that will be gained when individuals are directly involved in interdependent relationships. These alone will ensure that the politics of nature with the Lower Silvermine Wetland between users and between authorities can be resolved and monitored.

2.2.2 Access analysis concept

The concept of access aims to facilitate an analysis of who benefits from things and by which means and processes this occurs. Access focuses on who does what, who does not get to use resources and under what circumstances (Neale 1998:48). “Use” can be seen to mean the enjoyment of some benefit or benefit stream (Hunt 1998. “Access analysis then becomes a process of identifying and mapping the mechanisms by which access is gained, maintained, and controlled.” Therefore, because access patterns are dynamic and change over time, they must be understood as processes (Berry 1993; Lund 1994:14-15; Peluso 1996)

People and institutions control resource access, while access must be maintained through those who have control. Therefore access in the current study is open, but because of various obstacles that are affecting users access, there is a need to regulate access. The Access analysis concept helps in the understanding why institutions or people benefit from resources, be it they have rights to them or not. Access helps us to understand the difference between access and property. This is because the property is focused on claims which MacPherson (1978) defines as rights, while access

focuses on how people derive benefits from resources such as Wetlands that are conservation areas and nature reserves.

Using this framing, a method of access analysis will be useful for identifying means, relations, and processes that enable various actors, for example, users from the suburbs of Clovelly and Fish Hoek and illegal users, to derive benefits from the Lower Silvermine Wetland and the resources therein. At the same time, how authorities maintenance and control activities affect nature and access, and whether they should improve regulation of access or not is a significant consideration. This concept enables scholars, planners, and policymakers to validate dynamic processes and relationships of access empirically.

2.2.3 Approach to analyzing access

The political and economic aspect of the concept becomes realistic to the study by dividing social action into access control and access maintenance. Access control is then regarded as the ability to mediate others' access, while control refers to the checking of the function or power that is directing and regulating free action (Rangan 1997). In this case, the study sought to establish that basis by looking at the significance of authorities that regulate and control the Silvermine. When it comes to the maintenance of access, expansion of resources or powers will happen to keep a particular sort of resource access open asserts (Berry 1993). Maintenance and control complement each other. There are social positions that temporarily entail the means of access. They then form relations among actors about resource maintenance, appropriation, and usage. About this, the meanings and values of resources tend to be contested among those who control and those that maintain access. This alludes to the idea of property comprising of rights and duties, which is seen as a parallel distinction whereby claiming of rights is known as a means of access control, while the performing of duties is access maintenance to sustain those rights Hunt (1989). The study will bring out ways in which various users gain access to the Lower Silvermine Wetland in spite of their social positions in their communities.

Access can be located in a political, economic framework, which then provides a model of social change. Marx has given a context that helps us to understand that social relations and differentiation arise from cooperation and conflict over benefits which are seen in political-economic moments. Therefore the study will establish how other users are seen to be deriving

benefits that profit them leading to political conflicts between authorities that control the Silvermine. Laws in the form of regulations may be formed from these relations. In this case, access has to be regulated in the Silvermine as much it is an open access area. Benefits can now be redistributed then captured in the event of changing legal frameworks, and social relations since new conflicts and cooperative arrangements might emerge from such a decision. Access has many interdependent mechanisms; therefore, there is no need to impose criteria of access mechanisms. Access mechanisms tend to fit into political-economic moments in their various nature; therefore, they must be determined empirically. In the case of the Lower Silvermine Wetland, there is need to engage how these economic and political attributes contribute towards the consideration of how access has to be regulated. Where regulation of access is required, solutions to the issues arising from the nature Conservation space of the Lower Silvermine Wetland should be implemented.

From the above framework, access analysis involves identifying and mapping the flow of the particular benefit of interest. This is done by identifying mechanisms by which different actors gain access and control, and how benefit flows and how the distribution of resources is spread. Analyzing power relations should thus be done with much emphasis on the mechanisms of access that are involved, for instances where benefits are derived from access. Therefore the study will validate different users' experiences and authorities' control of access based on the benefits they derive from it.

In analyzing resource access, where the Lower Silvermine Wetland is seen as the resource area, the study requires the identification of the object of inquiry relating to a particular benefit or benefits from the resources and Wetland space. The benefits include: walking or jogging around the area alone or with pets, having the knowledge of fauna and flora found in the area and the vegetation's benefits from being well maintained through dredging of silt. Other benefits emanate from cleaning the Lower Silvermine Wetland by removing litter and animal waste and illegal access benefits derived from illegal fishing. Identifying the flow of benefits from what a resource brings out is complicated because, throughout its lifetime trajectory, benefits are defined by maintenance, control, and protection guidelines and activities. In this case, flood control, law enforcement, and the removal of solid and waste material which aids the growth of flora and provides a safer habitat for fauna can be seen as benefits. Benefits from resources tend to accrue in production, for example, tree planting to safeguard forests due to the extraction of trees for

wood, the carbonizing of wood transportation, distribution, and consumption. This is to say; a resource can be the specific benefit from a single transaction where the whole chain of benefits will accrue to multiple or single actors during its lifetime. Once benefits from the resources are identified, an analysis of the numerous mechanisms which institutions, individuals and groups gain, control and maintain access within particular political, economic, social and cultural circumstances should be done. A case of the Lower Silvermine Wetland is going to be explored as the case in the present study to illustrate the broad array of access mechanisms at work.

2.2.4 Mechanisms of access

This section aims to explore efforts and examples to map the mechanisms that shape access processes and relations. There is rights-based access which is sanctioned by law, custom or convention, including illegal access (when benefits are derived through illegal mechanisms). The section will then move on to discuss several factors under structural and relational access mechanisms. These mediate between rights-based and illegal access mechanisms, shaping how benefits are gained, controlled, and maintained. They include technology, capital, markets, labor, knowledge, authority, identities, and social relations.

2.2.4.1 Rights-based access

Legal Access

When the ability to benefit from something derives from rights attributed by law, custom, or convention, contemporary theorists have usually called it property MacPherson (1978). Rights-based access ensures the involvement of a community where the current study is focusing on the Silvermine Wetland, which is between the communities of Clovelly and Fish Hoek. The state or government that will enforce a claim is essential; therefore claim of the Lower Silvermine Wetland is maintained by City Parks under the Western Cape provincial government. There are claims in an open access area that have to be regulated. Law property rights include access through titles deeds of real property, including permits and licenses (Tawney 1978:141; Nelson 1986; 1995). The study seeks to establish users and authorities' views on how control of access in the Silvermine can be improved either through the issuing of permits or licenses or by merely maintaining the regulation that is already in place. Conventional access happens through social acceptance of a given circumstance in which people derive benefits. Conventions, also known as customs, do not

depend on effective enforcement mechanisms. However, one should not rule out the fact that coercion is used for enforcement (Weber 1978:319-20). This is the case with the Silvermine Wetland, and the study shows how it is readily accessible to everyone owing to control flexible measures. There is a need to realize that property rights holders can use sole sanctioned rights, with the required enforcement mechanisms, to control access. Those who do not have rights must engage with rights holders to gain and maintain access, most probably by paying a fee or exchanging a service for a benefit from the resources. Therefore the study assesses why some users and authorities think that a specific group such as homeless people should not access the Lower Silvermine Wetland. This will lead to the analysis of property rights shaping the relations among users concerning benefit flows. Viewed against this backdrop, it is crucial that within the context of the Lower Silvermine Wetland, the property rights are held by the City of Cape Town. It is worth noting, however, that the City has left access open to everyone without the need to pay for it.

New policies and laws do not entirely delineate the authority and power associated with exclusive rights. (Sundar 2001; Baviskar 2001) states that systems with joint resource maintenance are required where rights and access boundaries are not clear. Therefore through decentralization and participation, these co-maintenance approaches bring people into a participatory maintenance process but may not prevail to transfer rights to local people. This ambiguity facilitates state agents discretion in access allocation (Shiva et al. 1982; Rangan 1997, 2000; Ribot 1999). It becomes a two-way issue when looking at the present research as new policies can be a solution to problems such as illegal access, while at the same time coming up with policies in an open space will be like preventing people from exercising they're to utilize the environment as per the South African Constitution.

States tend to maintain local people as subjects to whom privileges, rather than rights, are delegated (Wong 1975; Hooker 1978; Burns 1999; Mamdani 1996; Ribot 1999) thus enfranchising local communities with rights over resources. Laws are put in place with most decisions and transfers of powers occurring at the top brass level thus maintaining uncertainty about who holds power to allocate access rights to particular benefits (Porter 1967; Hong 1986, Guha 1990. These legalities impart access control to state agencies leaving resource users in a position of having to invest in

maintaining access (Ribot 1995). However, Conyers (2000) calls this “means of transfer problem.” This is because transfers establish insecure privileges or arrangements that decision making agents can change when they want, rather than establishing the right of users (Peluso 1992b; Saberwal 1996; Sivaramakrishnan 1999; Ribot 1999). This becomes valid to the study as regulation and control is done by authorities which have the mandate to impose the permissible and non-permissible activities in the Lower Silvermine Wetland. This becomes a disadvantage to users as some of the control measures would deprive them of their benefits.

Uncertainty or ambiguity plays a significant role in overlapping systems of legitimacy, for instance, where the plurality of legal, conventional, or customary notions of rights are used for claims. However, from the plurality, some users are well positioned to enhance their benefits to maintain their access and gain control over other peoples access by choosing the space to claim their rights and have these rights enforced. This is evident as the study tries to show that different people have different claims in the Lower Silvermine Wetland. Therefore, they tend to use and benefit from a part of the Wetland to enhance their satisfaction (von Benda-Beckmann 1981; Lund 1994:14). Therefore it is essential to know that rights defined by law and convention are mechanisms that lead to who controls and who maintains access.

Illegal access

Unauthorized access is also regarded as rights-based. Therefore unlawful access is a form of direct access defined against sanctions of the convention, or the law. It is vital that we know that criminality is based on perspective, which depends on one’s relationship to the law and other rules or sanctioned customary practices (Peluso 1992b; Thompson 1975a; Hay 1975). Unauthorized access then refers to enjoying benefits from things that are not socially approved by government and society. Theft using force or using deception can be a form of accessing resources directly. The study sought to bring out such issues from some of the respondents’ narratives on how other users directly benefit from the resource illegally. In the case of Silvermine, some illegally benefit through fishing or usage of Wetland water by claiming their right to do so without following proper procedures and channels.

Illegal access functions through coercion, force, threat, and stealth shaping relations between users and those attempting to maintain gain, and control access. Access is then controlled illegally

through the above, thus leading to people illegally supporting access by having relations with, or posing counter threats to those who govern and control access when regulated. Government officials and authorities, including the police and other law enforcement agencies, may illicitly use their power to protect their resource access or they might prevent illegal access by various groups. This is what the study sought to bring out through narratives that bring out issues to do with safety and security in the Silvermine. By so doing, their actions may be rendered illegitimate or corrupt by other claimants to the resource who justify their access rights through other laws or conventions (Thompson 1975a; 1975b; Hecht and Cockburn 1989; Peluso 1992b; Peluso 1995).

On the other hand, it might be regarded as useful as they prohibit illegal access by other claimants and users. Rights, however ambiguous as their terms might look like, are not seen as the only way of controlling, maintaining, and gaining benefits from resources. This is to say, theft and violence should also be taken into consideration as access mechanisms that sometimes result from rights that deny access. About this, it can be true as the study sought to understand why users (since they have the right to nature) end up illegally accessing the Lower Silvermine Wetland. Is it because of regulation and control?

2.2.5 Structural and relational mechanisms of access

Benefits from resources are derived from the ability mediated by constraints put in place by specific political, socio-economic, and cultural frameworks within which access to resources is sought. This will bring about several aspects called structural and relational access mechanisms. This took center stage because of “access qualifications” (Blaikie 1985). He shows us that social and capital identity influence the person who has resource access priority. This entails that the study will bring out why some users benefit more than others. Therefore there is a need to explore how capital, markets, technology, knowledge, authority, social relations, and social identities shape or influence access.

Access to knowledge

Ideological controls, beliefs, and discursive practices, as well as negotiated systems, are part of access, and they shape access according to (Shipton and Goheen 1992; Peters 1994). Resource access is driven not only by moral claims to subsistence rights and economics. It also forms the social, political, and ritual purposes, power relations, and ritual harmony states (Peluso 1996).

(Foucault 1978b) says that resources accessible through the power it forms knowledge categories. This becomes key as it connects with the first part of the study hopes to achieve, which is to gather the knowledge of the users. This will assist in understanding users' relation and attachment to nature through their know-how of nature. Therefore expert status acquired through access to knowledge that is beneficial, for example, through higher education or expert training leads people towards privileged access to labor opportunities, physical access to resources, and network membership. Expert status is said to weight authority as it might allow individuals to manipulate beliefs and categories of resource use and access.

According to (Peluso 1992b; Sivaramakrishnan 1999; Rangan 1997) scientific narratives engage human activities and ecological changes that tell us that the state control resources. Fairhead and Leach (1998:175) "argue that asking forestry administrations to abandon narratives of decline and crisis would require them to undermine their resource-access-control claims." This brings us to a conclusion that control over information and knowledge does have direct benefits. Holders of technical information use the information for maintaining their access to income and labor opportunities when they have specialized knowledge such as the geographic knowledge of the local resource.

Access to authority

An individual's ability to benefit from resources is determined by access to authority. As we have discussed before, law partially shapes access to markets, capital, labor, and resources. Privileged access to institutions and individuals with authority to implement laws influences who benefits from the resource according to (Thompson 1975a; West 1982; Watts 1983; Weber 1978; Thongchai 1994). This type of access can be channeled through legal routes by applying for a permit and lobbying through official channels. This will be established in the study as some users claim that they own fifty percent each, of the river with City Parks in their jurisdiction.

(Ribot 1995; Robbins 2000; Sturgeon 2000; Dolittle 2000) Summarizes how legal and illegal access by state and other authorities is selective based on economic and social dynamics. Economic selectivity means that those without money may not be able to afford the cost of communication with officials of the state about their right to access. This is exemplified by the case of the vulnerable and attacked group in the study - the homeless people who are deprived of their right to access the Lower Silvermine Wetland.

Access to authority is a crucial aspect relating to powers that enable people to derive benefits from resources. In effect, authorities are significant shapers of direct and indirect forms of access control whereby access mechanisms are roped around one person or institution. Therefore the study will explore the authorities' mandate and the role they play in access regulation. Therefore this shows that people and groups maintain and gain access to some factors of production which they exchange. Ideally, this should not be the way things are done.

Access through social identity

The distribution of benefits from resources can be affected by social identity where access is mediated by social identity and membership in a community and group setting. These groupings are usually by profession, place of birth, common education, age, ethnicity, gender, religion, status or other attributes that constitute a social identity in a given context (Moore 1986; Bullard 1990; Shipton and Goheen 1992; Peluso and Vandergeest 2001). Some persons are subject to the law while others are not, due to their status in a social grouping. This becomes essential to what the study seeks to establish in cases whereby some users are subject to the law whereas other users are not (because of their social status, they think that they deserve more benefits than others. Inclusion and exclusion in the flows of benefits and duties from the transformation depend mainly on identity (Menziez 1988; Thompson 1991). There is a need to know that non-state authorities, such as community leaders, village chiefs, religious leaders can control resources and allocate access along identity lines. However, in this case, it becomes authorities such as City Parks who do that, and the study will show how it is done.

“Access to resources, such as for fishing and hunting in the United States of America was negotiated with Native American groups by early treaties and by the exclusion of some groups from the treaty process in the nineteenth century” (Huntsinger and McCaffrey 1995). The world over today, the discourse on tribes and native groups has led to the concepts of inclusionary and exclusionary strategies to gain access to resources, both internationally and nationally, with interests in those resources postulates (Li 1999, 2000; Tsing 1999; Hale 1994). Competing for identity discourses or telling and retelling of history can be used as a means of controlling or maintaining access Ives 1988; (Fortmann and Fairfax 1985; Peluso 1993).

Identity-based access can also be seen when rights or claims are linked and attached to or detached from specific localities or professions. Local users are excluded most of the times from nature reserves, especially if they intend to extract resources (Neumann 1998; Ribot 1995). It is also understood that conservation and development activists do expect local people to maintain and protect endangered wildlife species and habitats (Agrawal 2001). This is why the study seeks to bring out the relation of users to the Lower Silvermine Wetland to establish the extent of their relationship with nature and its inhabitants. However, scientists who are not even locals often have privileged access to the resources in a nature reserve through the extraction of resources for their work. This kind of access shows us that access to capital. Thus money and authority, vis-à-vis government permission, leads to greater resource access for the scientists or other influential people. This is because the scientific research that might be happening forms a part of knowledge production and practice that usually holds legitimacy in policy circles compared to the knowledge derived from local resource users therefore influencing their ability to maintain and control access by others. This is true, but there is no justification that the knowledge that the local people that interact with the Wetland for long periods cannot inform policy formulation. This is why the study will bring out insights aligned to that.

2.2.6 Regulatory practices

In most countries, natural resource maintenance is the primary responsibility of local authorities that regulate and maintain the natural environment by their respective legislation, policies, plans, and programs (White and Hackenburg 2012). Local governments have a responsibility to maintain natural resources within their local areas as laid down by the regulatory framework of each municipality. Some local authorities have developed their strategies and regulations on waste maintenance. They also have programs aimed at ensuring local sustainability and education outcomes. This becomes a problem to the study as the local council in question is not hands on. This delays and compromises Wetland maintenance. Also, the fact that various departments play a role on the Lower Silvermine Wetland somehow leads to misunderstandings regarding the control of the area. It is essential, as the study will show, to note the need to involve the local council more, not only for coordination purposes but to give more support in terms of funding and being involved in maintenance processes since they know the problems that are faced by users.

In trying to put in place effective natural resource maintenance, local authorities design regulatory measures. It is rare that the state uses coercion solely or even as the key lever of compliance with environmental laws. Instead, a wide variety of measures are used, frequently in conjunction with each other, as a means to deal with ecological harm. Generally speaking, systems of regulation range from “command and control” regimes on the one hand, through to systems based upon voluntary compliance and reliance upon “free market” mechanisms on the other side (White and Hackenberg 2012). Regulatory practices determine who accesses the natural environment when they can do so, and under what circumstances.

In 2011 as part of the South African National Biodiversity Assessment, desktop health assessment of the estuaries of South Africa was undertaken to try to identify gaps in knowledge and shortcomings of previous assessments and provide a consistent, comprehensive evaluation of estuaries in South Africa (van Niekerk and Turpie 2012). The assessment targeted several different areas, examining the pressures and threats to each estuary as well as the current condition for several biophysical parameters. The assessments were taken as a means of understanding the dangers that the areas may be subjected to. The results of such evaluations often lead to the authorities increasing control of the Lower Silvermine Wetland while at the same time regulating access to different users. The idea that different users pose a threat to the natural environment results in the authorities denying access to several users who may have an interest in the natural environment. Therefore the study through its narratives will show the lack of such action as no improvement in regulation is being done on the Wetland under study.

Carolan (2005) states the need to understand multiple meanings of the concept of nature. Nature, in the context of environmental action, can refer to the object of nature’s protection. This includes the protection of plants and landscapes as they are encountered and dealt with in everyday life. It is essential to understand that nature is vital to human bodies, and humans are also crucial for nature’s sustenance. This will enable regulatory practices that will enhance user access to and benefits from the Lower Silvermine Wetland. The study will emulate this idea based on how users relate to the Lower Silvermine Wetland differently since their uses of it are different. Therefore nature will have a different meaning to them.

Oviedo (2010) asserts that if adequate governance mechanisms are not put in place, conflicts over the natural biodiversity erupt as different actors or users claim ownership of the natural environment to satisfy their priorities. Although the present study acknowledges that, if adequate regulatory mechanisms are not put in place to control, manage, and govern access by users, the result may be conflict as stated by Oviedo (2010). It is important to note that the major viewpoint of this study is that different users have different views about what the natural environment represents. As different users of the natural environment present different perspectives of the natural environment, the consequence and outcome of such an arrangement may be conflict. The study will try to explain this factor by looking at authorities who control the Lower Silvermine Wetland and examining the conflicting mandates that arise in terms of measures that are in place and those that should be put in place.

According to Darby (2010), natural resources, especially forests, animals, land, fish, and water, present a host of challenges to the transparency and accountability agenda. Surkin (2011) supports the argument presented by Darby (2010) and argues that legal institutions and legislative frameworks for natural resource conservation must be designed in a way that enables democratic governance of the biodiversity. Surkin (2011) further asserts that sustainable natural resource maintenance demands more democratic and equitable governance processes. Darby (2010) and Surkin (2011) make it clear why transparency and accountability are essential factors in the maintenance of the natural environment. However, the two do not spell out the role of the local authority in administering the controls and regulations in terms of access to the natural environment. What is being presented here is essential for the sake of transparency and accountability in the maintenance of the natural environment, especially by the authorities. In the same spirit of transparent natural environment maintenance, regulations and controls are put in place by the authorities. The nature of the regulatory practices and how these are administered forms the basis of this study. As such the literature gap identified in the works of Darby (2010) and Surkin (2011) will be filled by the study as it seeks to determine how the regulatory practices by the local authority create access implications for the users of the natural environment.

2.2.7 Legal frameworks

The South African government recognizes the need for Wetland conservation to be guided by effective proactive measures for maintaining clear, healthy Wetland, at the same time reversing

past degradation which can have a blue flag rating and even is listed on the Ramsar list, with the latter aspect forming the core business of government-led Wetland program. Section 28 of the National Environmental Maintenance Act has what is known as the duty of care, which stipulates that landowners must take measures to prevent, minimize, and rectify environmental degradation on properties. This can be done via rehabilitation objectives as a way of improving the integrity and functioning of Wetland and ecosystems. Rehabilitation measures address the causes and effects of degradation. The study will seek to address how authorities use regulation in minimizing environmental degradation in the Silvermine.

Constitution of the Republic of South Africa, 1996 Section 24

The right to an environment (including Wetland) that is not harmful and the requirement for municipalities to provide services to communities in a sustainable manner to promote a safe and healthy environment is enshrined in section 24 of the Constitution of South Africa. It states that everyone has the right to an environment that is not harmful to their wellbeing and health. The Constitution also emphasizes the need to make sure that the environment is protected for the benefit of present and future generations. This can be done through legislative and other regulatory measures for the prevention of pollution, ecological degradation, promote conservation; and ensure ecologically sustainable development and wise use of natural resources at the same time promoting economic and social development. The Conservation of Agricultural Resources Act of 1984 is an essential instrument as it became the first substantial legal tool that protects Wetland and remains in existence and force to this day. Therefore the study will allude to the Constitution to ensure that the Silvermine is accessible by all users and is maintained for the good of nature and the people who access it.

National Environmental Maintenance Act. 36 of 1998 (NEMA)

NEMA, as a legislative framework for environmental governance in South Africa, includes ecological principles that form a vital part of decision making, which affects the environment, including within the municipal parameters. NEMA also plays an integral role towards the general duty of care not to cause pollution and degradation of the environment, and where harm on the environment is unavoidable, by taking measures to clean up and rehabilitate. Furthermore, it states that, in the event of an emergency that affects a Wetland, NEMA response procedures should be

complied with. The National Water Act 36 of 1998 (NWA), the National Environmental Maintenance Act 107 of 1998 (NEMA) and the environmental provisions of the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA) ensure that urban and commercial developments do not affect and change the natural state of Wetland.

National Biodiversity Assessment of 2011 revealed that 65% of South African Wetland types are under threat, 48% are critically endangered, 12% are endangered, and 5% are vulnerable. Only 11% of Wetland ecosystem types are well protected, and 71% are not protected at all. This depicts the precarious state of Wetland assets. This is one of the reasons that the study will try and elaborate through participants' narratives, why the Silvermine is losing its status and is no longer one of the blue flags rated Wetlands in Cape Town.

The Ramsar Convention's 1971

The Convention aims to stop the worldwide degradation and loss of Wetland by conserving them by wise usage when accessing them and maintenance. It facilitates international cooperation, capacity building, technology transfer, and policy making. The Ramsar Convention led to a variety of natural and human-made habitat types such as rivers and coral reefs being classified as Wetland. Wetlands include marshes, swamps, billabongs, salt marshes, lakes, mudflats, coral reefs, mangroves, fens, peat and natural or artificial water bodies (both, permanent or temporary).

The Ramsar Convention encourages the allocation of sites containing representative, unique or rare Wetland and Wetland that are important for conserving biological diversity where fauna and flora are part of the Silvermine Wetland. The designated, sites are added to the List of Wetland of International Importance under the convention and are known as Ramsar sites of which the Silvermine Wetland is not on that list. Designating a Wetland as a Ramsar site is an agreement between countries to establish a maintenance framework that they oversee, which is aimed at conserving it and ensuring that it is used and accessed wisely, where wise refers to the maintenance of the ecological character of a Wetland. The reason behind Wetland inclusion on the List of Wetland of International Importance is their ecological, zoological-botanical and hydrological importance. This becomes vital to the study as it sought to establish momentum in maintaining the Silvermine plant and animal diversity through improving regulation from participants' perceptions, knowledge, and relations to the Wetland as nature users.

However, the legislative framework that enables Wetland protection is fragmented. There are many government departments and agencies with responsibilities relating to regulation. This includes the South Africa National Biodiversity Institute (SANBI), Department of Environmental Affairs (DEA), Department of Water and Sanitation and Department of Agriculture and the Forestry and Fisheries (DAFF). There are further several acts and strategies that enable Wetland protection. Given the depreciating status of Wetland in South Africa, the current legal framework has not resulted in the protection of natural resources, in particular to Wetland. The introduction of market-based instruments such as Payments for Ecosystem Services (PES) may provide solutions for South Africa. Recommendations relevant to the context include: (1) the inclusion of provisions for incentives and guidelines for implementation into policy, (2) a valid and appropriate institutional capacity, as a way of supporting legal mechanisms, (3) a strong technical and scientific basis and (4) the need to develop sound processes for measuring and monitoring the implementation in conjunction with simple and effective contractual arrangements. The relevance of these will be brought out by the study based on respondents' narratives. The study will further develop the ideas by discussing insights from users and authorities' narratives regarding the conservation of the Silvermine Wetland.

Sustainable Development Goal (SDG) 11

Sustainable cities make up the 2030 agenda for Sustainable Development Goals. By making cities and human settlements inclusive, resilient, safe, and sustainable. Report of the First Stakeholders Consultation on Post-2015 monitoring: Indicators and Monitoring Mechanisms (2015). An integrated approach is essential towards making progress on the goal. Through promoting sustainable urban local and national policies in the case of the Lower Silvermine, we can implement policies driven by user's perceptions and relations to the Wetland since they know and use the Wetland more often. Through diversity, there is a need to advocate for more equitable financing of urban initiatives. In the case of the Silvermine Wetland, funding and financing of initiatives and project that help maintain the conservation of the Wetland have been lacking. Hence such a target from goal 11 will be significant in solving such a problem in this space. Access to safe and inclusive public space as an indicator under goal 11 is vital as it guarantees that the common area is an area that is safe and accessible to all. Which can only be done by enhancing areas such as the Lower Silvermine Wetland for public safety and good nature user relationship?

Also, by implementing mitigation and adaptation plans and policies helps to ensure that cities and common spaces in cities are resilient and can sustain disasters. In the case of the Lower Silvermine Wetland, droughts and flooding effect can be minimized to the people and nature if policies that enable mitigation are applied and driven. This protects nature and nature users from nearby suburbs.

Sustainable Development Goal (SDG) 15

United Nations Environmental Program (2015) states that Goal 15 focuses on protecting, restoring and promoting sustainable use of terrestrial ecosystems, this can be done through sustainably managing forests, combating desertification, reversing land degradation and halt biodiversity loss. Where biodiversity loss is evident in the Lower Silvermine Wetland through illegal access and doing nonpermissible activities. There is a need to promote fair and equitable sharing of the benefits arising from the utilization of resources and promote appropriate access to such resources as one of the targets of SDG 15. The reason is that benefits are being accrued through social identity, and access is limited in common areas with resources for everyone to make use off. Such a scenario is of enormous significance in my study as everyone has the right to access the Lower Silvermine Wetland, but there are groups of people who are said to be a threat to the Wetland while another group is left alone when it accrues the wetland benefit to their justification.

Furthermore introducing measures that prevent and significantly reduce the impact of invasive alien species on land and water ecosystems. As part of one of the targets of this SDG relating it to the case under study. The Lower Silvermine Wetland has been facing the growth of these invasive species such as tyfar that have led to the Wetland to be a non-blue flag status as it was before. This has been caused by non-maintenance of the area by responsible authorities and funding that is allocated to the City authorities is not enough to do the whole maintenance on the Lower Silvermine Wetland. Therefore as the other targets states mobilizing and significantly increasing financial resources from all sources to conserve and sustainably use biodiversity and ecosystems is needed and should be a priority. This facilitates resources to be used for the conservation and protection of the Lower Silvermine Wetland to be blue flag from now onwards into the near future.

2.2.8 Coclusions

The chapter explained the concepts that informed the study, and it discussed the relationship that exists between these concepts and how they bring out the problems that the investigation is trying to cover. The idea of access was vital as it explained how users access the Lower Silvermine Wetland in various ways that enable them to benefit differently from one resource. It also gave an outlook on how people derive some benefits illegally. Political ecology shed light about issues that occur in commons such as the Silvermine looking at the conflicting mandates and how authorities who control and regulate commons such as the Silvermine misunderstand each other and users by managing and securing commons for the conservation of the environment and protection of nature users. In a nutshell, it focused on contestation that happens in resource use. The chapter also explored international and national legal frameworks related to Wetland maintenance and access regulation, with much emphasis on the users who access nature and how regulation works on environment, whereby users have the right to access environment as much they might be controlled on the environment. Finally, the chapter discussed some of the findings from preceding studies related to the topic being explored by the present study. It is evident from the literature review that though the contexts may be different across the globe, the issues surrounding resource access are similar. Therefore the reason for studying the literature used in this chapter is to try and see what has been done before comparing it to the present study. This helps in coming up with a new scholarship if there is a gap in the literature between the present and past studies. Also, literature facilitates supporting the present study in similar issues.

Chapter Three: Users perceptions, relations and use of the Silvermine Wetland

3.1 Introduction

The chapter presents and discusses the findings of the research study, which focuses on the relations, perception, and use of the Lower Silvermine Wetland by users who derive their benefits from it. Users' access and maintenance of the Lower Silvermine Wetland by the authorities are vital to understanding that the Lower Silvermine Wetland can be a site that can be enjoyed by all users, also allowing nature to be conserved for the benefit of the environment and people. This chapter also outlines the profiles of participants by looking at their gender and occupation. It will further focus on themes that represent the findings of the study. These themes are derived from main categories that include: knowledge of the Lower Silvermine Wetland and river, Wetland and River relations, contributions towards maintenance and development of the Wetland, Wetland maintenance and regulation of access to the Wetland. The chapter also provides insights suggested about the study objective one.

3.2 Profile of participants

This section provides the general background information about the research participants about their gender and occupation, where occupation is going to be the users that relate to the Lower Silvermine Wetland and River. Users included: a participant from the Golf Course, two from the Riverine Rovers which is civic society group whose members are also residents of the neighborhoods of Clovelly and Fish Hoek, a Homeless person, a resident of Clovelly and a representative from the Storm Water Department. The latter respondent's interview contributed to discussions in both, the current chapter and in chapter four.

3.2.1 *Gender*

Five participants took part in the first part of the study that sought to address the objective one. They were interviewed at different times, based on their availability. Three of the participants work and live in Fish Hoek and Clovelly suburbs where the Lower Silvermine Wetland is located except the stormwater official who is from Plumstead but performs his duties in the Wetland. The sample comprised of five people; four males and one female.

3.2.2 Occupation

Five of the participants who took part in the study all know the Lower Silvermine Wetland, and they have different perceptions, and experiences based on their use and responsibilities towards the functioning of the Wetland. Three of them are employed in jobs that have a direct relation to the Lower Silvermine Wetland as much they are users and the other two are not occupationally affiliated to it. The participants whose occupations relate to the Wetland have been in their positions while residing in Clovelly and Fish Hoek for over ten years; therefore, their experiences about the Lower Silvermine Wetland is active.

Category	Theme
Knowledge of the Silvermine Wetland and river	Flooding Drought
Wetland and river relations	
Contributions towards maintenance and development of the Wetland	Funding
Wetland maintenance	Pollution
Access to the Silvermine Wetland	Regulation of access Access not regulated

Table 1: Category and Themes gathered

The section below discusses findings based on participants' knowledge, relations, perceptions, and use of the Silvermine River and Lower Silvermine Wetland. Categories classified under main headings will guide the discussion of themes that are outlined as subheadings. Each respondent who participated in answering questions relating to objective one informed discourse under each category and theme. Therefore, the discussion considered the contributions of each respondent as part of the analysis. Only two respondents in this section were asked questions related to the regulation of access; both of them represented the residents of Clovelly and Fish Hoek, with one of them being a member of the Riverine Rovers.

3.3 Knowledge of Lower Silvermine Wetland

Drought

“I have watched dry cycles since my arrival in Clovelly so for me this a normal, natural thing happening because the Silvermine river has dried 87 times. And there was a section of the river that was bedded to the golf course which turned into a dry perch before my arrival”¹.

Respondent 9 pointed out that the current Cape Town drought has affected freshwater generally, as well as the river, flows into the Lower Silvermine Wetland. In the case of a drought, the golf club makes use of borehole, and they pump in water to reservoirs that are within the river channel. This highlights that the groundwater that feeds the boreholes will still function because of the river water area underground and the constant refilling of reservoirs using borehole water shows how the drought has led to the depletion of river water on surface flow. However, this has a slightly lesser effect as the water tends to flow at a minimal level in periods of less rain, consequently affecting the biodiversity in the area. Therefore, in terms of relations to the Lower Silvermine Wetland, the respondent relies on the Water that flows to the Wetland for Golf course maintenance when there is no drought. That is why they drill boreholes to solve the problem of water shortages to water their golf course. Based on the researcher’s observation, the golf course is always green, therefore attesting to the use of boreholes and reservoirs as alluded to by the participant. However, I observed that it could have a detrimental effect on the Lower Silvermine Wetland water flow as water will be flowing at a lesser speed and in small quantities, which has an impact on the survival of flora and fauna therein.

Flooding

“So there is a 10 year cycle of flooding in 1993, 2003 and 2013 which was the thick of the wet period there was the bursting of the river banks and flooded part of the golf course and at that stage we had to put in place a Maintenance Management Plan that is separate from the one the City of Cape Town through stormwater has to help us prepare and mitigate flooding impacts when they do occur. Therefore I am expecting a flood in 10 years in 2023.

¹**Respondent 9:** 1 Homeless male. Interviewed on 18/10/17.

On another note, the flooding can be increased by the sediments that flow with the river from the mountain where the river begins”.²

Flooding was one of the main issues which were raised. It was suggested that within Silvermine, there is a ten-year flooding cycle which is characterized by the flow of water to the golf club when the river floods. When this happens, water floods the golf playing area, thereby affecting operations and income flow. At the same time, it fills reservoirs and increases groundwater water table within the golf course area. The flooding was said to come with a lot of silt from the source of the river upstream. This led to sediments raising the river bed that further promotes flooding and some of the water runs downstream to Lower Silvermine. Vegetation such as *typhus* weeds tend to grow rapidly because of a lot of rain, and they contain a lot of moisture because they will be helping to infiltrate the water in the ground. Through observations and interviews, it was established that their growth has led to dense vegetation in the Lower Silvermine Wetland, thus inhibiting user access. Respondent 9 also pointed out that this will lead to sediment accumulation that will be coming from the mountains where the river starts, and this inevitably increases the risk of flooding because of a raised river bed. Furthermore, I observed that the little water that was flowing through the Lower Silvermine Wetland during the drought season in Cape Town was covering some pathways that facilitate people's access. Furthermore, the visibility of the overgrown fauna is evidence that flooding does occur and has led to the growth of the *Phragmites australis* reeds.

Flooding

...The Lower Silvermine Wetland was built as an excellent idea, but unfortunately, the City of Cape Town under the local ward has not done any maintenance on it Um, now it is useless as a flood control method. Um, reeds are growing down there...³

Respondent 8 acknowledged that there used to be a canal system that was put into place that helped channel the river water to different parts as it flows towards the ocean. However, the Local Council and the Storm Water department failed to maintain this plan. As a result of this, Fish Hoek experienced flooding in the 1990s. The flood occurred mainly because there was a build-up of branches and sand in the one channel that the river had to pass through. Therefore, when there was

²**Respondent 9:** 1 Homeless male. Interviewed on 18/10/17.

³**Respondent 8:** 2 Group members of the Riverine rovers (1 Male and 1 Female participant). Interviewed on 13/10/17.

excess water being prevented from flowing, the water spilled over into the surrounding residential area, affecting user's access to the Lower Silvermine Wetland. As I alluded to earlier on, under respondent 9, flooding evidence can be seen. The extreme siltation problem causes the risk of future flooding in the area. The first bed that was meant to spread water to different areas is now full of reeds and does not assist in any way because it slows down the flow of the river water. When the flow is slowed down, siltation is easily deposited in the area. During a period of increased water flow during the rainy season, this silt is what will cause the flood in the area as it restricts adequate water flow towards the ocean.

Drought

...mismaintained no, can't be because this water is running straight. The water is running straight to the sea water.....the block stopping is there by the golf club, because they are also taking from this water. To fill up the dams to run the Golf club.⁴

Respondent 7 revealed how homeless people who stay at the River mouth had not experienced any drought in the area. This alludes to the fact there is a cycle of homeless people that comes to stay at the estuary, thus leading to a lack of adequate knowledge of the drought. Due to their situation under the bridge, including during periods of rainfall, they continue to observe water flowing even during drought seasons. He further mentioned how the water continues to flow even if the flow slows down from where the river starts. He also revealed how they view drought in terms of the reduction of water flow through the bridge. They know this from what they have heard regarding issues of water diversion and capture at the upper stream of the river where it passes through the golf course before it goes into the Lower Silvermine Wetland. The claim here was that any mention that the water flow to the river has been blocked up is a lie. The respondent claimed that the river continues to flow frequently even with little rain and that when the river flow is slowed down, it is mainly because the flow is being restricted near the golf club. The blockage or diversion might be there, but they still see water flowing. This means that if there were no blockage, water would flow with increased pressure. However, I observed that in terms of the slow movement of water, there is no proof that the golf course is diverting water as suggested by some participants. The slow movement of water allows homeless people to stay where they are staying because there is

⁴**Respondent 7:** 1 Male Golf course personnel. Interviewed on 05/10/17.

less water to destroy their shelters. Therefore, their relationship with the river and the Lower Silvermine Wetland is linked to the assurance of slow water flow. On the one hand, it is important to think that if there is indeed blockage, the homeless people's relation to the golf course is positive because to them, the golf course enables them to remain under the bridge as no water is likely to flow heavily enough to destroy their shelter. On the other hand, since the water is running straight into the seawater, it shows that even the homeless people are not using the water from the river for other purposes as it follows directly past them into the sea.

Flooding

“Ever since I started staying in the suburb of Clovelly, I have experienced flooding once and have heard a lot of talks on the cycle of flooding that happens on the Lower Silvermine Wetland. They say that flooding has happened that water affected some houses in the suburb I stay from the Wetland. Now because of change in climate change I guess that's why the flooding I experienced and floods are rarely occurring unless if they are to be caused because of the departments who make sure the Wetland is maintained does not do what has to be done to prevent flooding when there is a lot of rain in the area”.⁵

The respondent above is a user who has been staying in the area for so long, but she does not pay too much attention to the issues associated with the Lower Silvermine Wetland. Her acknowledgment of how she experienced flooding shows that flooding does occur. This alone informs us that the Lower Silvermine Wetland is a flood risk, affecting the residents and automatically impacting on nature where the flooding occurs. Her narrative informed that flooding does occur in the area. However, there are lesser occurrences of flooding nowadays, and the intensity has lessened because of the change in the climate. This alone serves as proof of how the Lower Silvermine Wetland is being affected by such conditions, and this will hinder users from accessing the conservation area. The effect of climate change tallies with the contribution made by respondents 7, 9 nine and 5, on how there is reduced water flow, and on how drought cycles have prevented water from flowing very well into the Lower Silvermine Wetland. To further the evidence of Climate change, respondent 9 acknowledged that the drilling of boreholes and having reservoirs to store water to counter the problem of climate change as an effect. The most exciting

⁵**Respondent 10:** 1 Female resident. Interviewed on 27/07/2018.

part of the narrative is that it shows that, if climate change is causing these effects, poor management of the Lower Silvermine Wetland by residents and the accounting departments that control, mitigate and prevent flooding from affecting the biodiversity could be partly to blame. Therefore authorities can be viewed as contributors to flooding if they do not do their job effectively.

Flooding

“Flooding of Fish Hoek was a frequent occurrence, and in 1999, a flood alleviation strategy was introduced in the lower valley to accommodate yearly floods. This entailed the creation of a Wetland/flood detention area, designed as multi-stage terraces, separated by gabion mattress weirs. Extensive landscaping and rehabilitation in and adjacent to the river formed part of the project. As our department, we make sure that flooding does not occur through removing accumulated silt in the stormwater drain and within the Wetland overgrown vegetation. This is because of the history of flooding in Fish Hoek and Clovelly that previously affected nature and residents”.⁶

The respondent maintained that the lower Silvermine was prone to flooding and if a flood were to occur, it would prove disastrous for the Fish Hoek and Clovelly Areas. This would affect people’s livelihoods and houses. The flow of water during flooding periods at the lower Silvermine River had to constantly be monitored by channeling the flow of water through water tunnels to ensure that most of the water enters through the tunnels and the excess water will submerge in the Wetland while some of it flows towards its mouth into the ocean.

3.4 Wetland and river relations

“The golf course primarily has eight boreholes that pump into this reservoir or dams whatever you can call them. When the reservoirs get full, they spill back to the river, and this helps the Wetland to be full of life helping both the plant and animal species that breed from there and allowing the residents of Clovelly to enjoy the site of a green Wetland.

⁶**Respondent 3:** 1 Male from Storm Water Integrated Transport. Interviewed on 12/07/18.

Historically we have utilized river water if there is excess river water and currently after we do our dredging of silt we can use the silt on the golf course landscape”.⁷

The above narrative brings out the close connection between parts of the river that passes through the Clovelly Golf Club as it flows to the Lower Silvermine Wetland. The golf club users have a relationship with the river because it allows them to draw water from the river as it passes through the reservoirs constructed within the river channel. This allows the river to feed into and out of the reservoirs as it flows downstream to the Lower Silvermine Wetland. It also facilitates a positive development to life that lives within the area. The fact that the golf club users hope to use the silt dredged from their part of the river for golf club landscape developments shows how natural waste can be used or recycled for other purposes such as the redevelopment of the golf course playing areas. It is possible to use dredged silt, but the type of silt that comes from the Silvermine River did not look like the one that forms part of the golf course. Furthermore, considering that golf is a sport that requires high-income earners to play in golf estate, it is plausible to say that there are chances that they can pay for better sand or silt that is aligned to their standards.

“The Silvermine Wetland represents a green area, a natural area where plants grow and where animal and birds sleep and where people go too. We have been part of the Wetland since it was canalized and we made sure that it is a clean Wetland accessible by residents from Clovelly and Fish Hoek and many others. Our duty as a civil society is to make sure the Wetland is maintained and kept up to the standards of Wetland. However, there has been a slump in how the Wetland once looked like and today. We make sure that there is no litter, dog waste and we rewrite and paint boards with direction to use in the Wetland, also with animal and plant species found in the Wetland”.⁸

From the above narrative, the respondent appears to be involved in different green programs that help sustain the Lower Silvermine Wetland which is the reason why there is a representation of the space as a green natural area which has various fauna and flora. As a resident and civil society group member who also works on the Lower Silvermine Wetland, the participant showed that

⁷**Respondent 9:** 1 Homeless male. Interviewed on 18/10/17.

⁸**Respondent 8:** 2 Group members of the Riverine rovers (1 Male and 1 Female participant). Interviewed on 13/10/17.

there is a relationship between the group and the Wetland. The group seeks to make sure that the Lower Silvermine Wetland remains a blue flag Silvermine (which might not be the case at the moment). Furthermore, they have ensured that access is visible to other users who take walks and run within the Wetland boardwalks. The work that is being done by the group in making sure they step in on behalf of the responsible authorities in the maintenance of the Lower Silvermine Wetland is impressive because the authorities are failing to observe that it is depreciating in appearance through excessive growth of vegetation and placement of infrastructure such as benches. Poor management of the resource can also be attributed to lack of funding and conflicting mandates between authorities, mainly manifest when authorities are failing to participate in their terms about the Wetland development. Various departments are not in agreement on specific issues that affect the Silvermine; for instances, they are divided on how to deal with fundraising and regulating access by homeless people. Therefore, as much as the group is stepping in by cleaning the Lower Silvermine Wetland and making sure it is accessible, a lot of work still needs to be done.

...most of the African people they come to the beach here, they experience their things. Sangomas, they work here, they send their people maybe to take some water, they go there, I don't know what the meaning of that...we do not drink, bath or wash our clothes in the river or even pollute it through urinating in it, but there are reports that we do these things and we are a threat to the Wetland maintenance.⁹

The above narrative established that most homeless people make use of nearby government toilets. The issue was that there are usually reports by nearby resident members whenever they think that homeless people are polluting the area.

Further to that, there is an emphasis on how homeless people make it difficult for the City to ensure the Lower Silvermine Wetland is clean. It is also important to note that it is not the homeless people that pollute the Lower Silvermine Wetland water because they do not use the bath or wash with the water. My observation was that the claim that they pollute the water by bathing or washing in it might not be accurate. This is because I saw clothes being washed in specific locations near where the homeless reside. Their source is directly from the water that runs through the mouth of the Wetland. Furthermore, there is evidence that because of African practices of Sangomas the

⁹**Respondent 7:** 1 Male Golf course personnel. Interviewed on 05/10/17.

homeless people do not use the water that runs from the Lower Silvermine Wetland to the sea because they think it is dirty or it has been affiliated with evil spirits.

*“My relationship with Wetland might be the same with most residents though I can’t talk on behalf of them. The Wetland has been my source of relaxation ever since I came to stay here; I come here after work if I finish on time and most weekends just watching nature, plants, birds, and toads. It is unfortunate that back then I would see the water and other birds and animals clearly before it has grown this vegetation that is covering a lot of things. I meet a lot of people when I visit who will be running walking alone and with their dogs”.*¹⁰

The narrative is very much significant in the sense that the respondent is aware of her perceptions and knowledge of the Lower Silvermine Wetland. It is a place of recreation in that it allows for the viewing birds, plants, and animals that stay there. There is a need to emphasize the fact that her routine after work and weekend visits to the area makes her feel relaxed. This puts into context the idea of the Lower Silvermine Wetland as a site of leisure and recreation since it is a source of relaxation and enjoyment based on what its nature has to offer. However, in keeping up with her routine, she had noted the increasing barrier of the invisibility of fauna compared to a couple of years back when the Lower Silvermine Wetland was a blue flag Wetland. It seems as if the growth of invasive plants is affecting the Wetland’s attractiveness, which will, in turn, affect users when they will not be able to derive benefits which they once enjoyed in the past. Lastly, the respondent has tried to demarcate her usage and relationship to the Lower Silvermine Wetland from how other users use it by emphasizing that she see others running, walking alone, and with dogs. The same was mentioned by respondents eight, one, and five. This gives an indication that the Lower Silvermine Wetland is used and accessed by different users and for various reasons and activities.

*“We need to make sure that the river is clear, and the flow of water is smooth to allow that the river flows to the estuary and feeds in the ocean. And also, to allow the fire department to draw water in the Wetland in case of a fire that will burn the nearby neighborhoods of Clovelly and Fish Hoek and in Simon’s town because seawater has salt, it affects the putting off of fire”.*¹¹

¹⁰**Respondent 10:** 1 Female resident. Interviewed on 27/07/2018.

¹¹**Respondent 3:** 1 Male from Storm Water Integrated Transport. Interviewed on 12/07/18.

Respondent 3 indicated that the Stormwater department is the overall overseer of all the Wetland in the South Peninsula of Cape Town. He explains how there is a need to maintain the Silvermine as it can be used to draw water for firefighting when there is a fire within the surrounding areas of Fish Hoek and Clovelly. This entails the significance of taking care of Wetland by authorities as it can be a source of disaster response.



Figure 5 shows the extent to which the vegetation has grown

3.5 Contributions towards maintenance and development of the Lower Silvermine Wetland

Funding

*“It cost about R1million to R1.5 million of alien removal then the earth moving phase cost R1 million to R1.5 million we talking about really big money and right now we paid R300 000 for the Maintenance Management Plan and right now we don’t have the current resources to do anything about the silt in the golf club jurisdiction. This is likely to cause conflicts with the city that is likely to its dredging beginning of 2018 in the Wetland because we will need to do dredging within our jurisdiction when we get money. By so doing this will wash away the silt to the already dredged Silvermine Wetland”.*¹²

¹²**Respondent 9:** 1 Homeless male. Interviewed on 18/10/17.

Respondent 9's narrative revealed that there is a bigger challenge in terms of funding in trying to maintain the river that flows to the lower Silvermine from the golf club's perspective. The golf club is facing challenges when it comes to raising funds for the dredging of silt in their jurisdiction before another flood or another rain season comes. The respondent insisted that the golf club requires a lot of funds that are currently unavailable. However, if the golf club does initiate the dredging of silt, they would cut costs. There is an implication that coordination between authorities and users can be difficult because of the lack of funding for the dredging of silt. Often this leads to conflicts and adverse effects on the environment and its species. From the narrative, the siltation that will happen upstream on the golf club area will affect the Lower Silvermine dredging process that was done this year. This is because if the next rains come after the stormwater has dredged the Lower Silvermine and nothing has been done to dredge the golf course part; silt is going to run down to the lower banks of the river and accumulate again in the newly dredged Lower area of the Lower Silvermine Wetland which will be a blow to the authorities that maintain and regulate access.

*...and our group the friends' group known as the friends of Silvermine do give us money to help and assist in conserving the Wetland and managing it since we part of their organization, we got a man down there. The alien invasive species unit employed. And he works as a green warden, once a week...*¹³

As a group of friends, Riverine Rovers makes use of personal funds and donations to hire a green warden, a man previously hired by the alien's invasive species unit. When his contract ran out, the Riverine Rovers hired him, and they are the only ones paying him to keep the area clean. The inclusion of other residents in the cleaning of the nature reserve creates employment, and it allows an employee to do their work precisely in the view that they would love to access a well maintained Lower Silvermine Wetland with no pollution by dead branches leaves and litter. The maintenance of the Lower Silvermine Wetland by this group ensures that work not done by authorities is not noticed to a certain extent. Since the private sector can come into play to bridge that gap in maintenance, that will lead to developments based on how people interact with nature through their use of Wetland which is a recreational area that has access to all.

¹³**Respondent 8:** 2 Group members of the Riverine rovers (1 Male and 1 Female participant). Interviewed on 13/10/17.

The Riverine Rovers group is community-based and self-funded when they do not have funds they have a group within their organization known as Friends of Silvermine that assists them in raising funds to make sure they continue to maintain and develop the Lower Silvermine Wetland so that it is accessible and well conserved. It created a job for an individual who is hired to manage and maintain areas around the river. This is problematic since one person is not enough to do all the work required to make sure the Lower Silvermine Wetland is conserved. This was evidenced by the current state of the Silvermine, as much as the group is doing its best to help with Wetland maintenance.

...most of the guys here are ex-prisoners. Who was sent into society to get another second chance in life? We fall under the Street peoples Project that helps clean litter from the Wetland mouth, Clovelly beach.¹⁴

Some of the homeless people are tasked by the city to clean up the area near the beach and to ensure the protection of those who visit the beach. Some of the homeless people who are identified ex-convicts are given such tasks as part of a rehabilitation program. This rallies on the fact that the homeless people have been labeled as the ones that are polluting the Lower Silvermine Wetland. They are also suspected to be a drug dealer's thus compromising user access because people are scared of entering spaces in which such dealings occur. This narrative shows that they do contribute to the Lower Silvermine Wetland through cleanups. Therefore there is a need to treat them with dignity though they do not have to be ruled out as potential participants in criminal activities. Law enforcement officials have busted them a couple of times, but they did not find any proof of illegal activities. Furthermore, it is essential to note that the very same Law enforcement officials who do drug searches on the homeless people, work with them under the street people's project. Evidence from an interview with a Law enforcement agent shows that they have helped in reducing crime around the Lower Silvermine Wetland.

Funding

"R200 000 is never enough for this particular Wetland in the South Peninsula of Cape Town probably it's just going to cover transport cost however the City of Cape Town (CoCT) has excavators that will be of use to do the dredging than to hire. Also, our budget

¹⁴**Respondent 7:** 1 Male Golf course personnel. Interviewed on 05/10/17.

*has been cut due to the Cape Town drought that has led to the CoCT to cut all department budgets with the current 4million rand budget for the maintenance and maintenance of Wetland being scaled down. This has made our work difficulty in trying to create an accessible and clean Wetland”.*¹⁵

Respondent 3 noted that funds to maintain and develop the lower Silvermine River are never enough. This is also evidenced by the amount of money being allocated for the dredging process and the need to use the City of Cape Town’s dredging equipment to cut costs. He also revealed that river maintenance in Cape Town requires proper budgeting as the current budget set at R4 million for stormwater has been cut down due to the current drought with resources being diverted to the desalination plant. There is further emphasize that the budget is also being cut down for the maintenance of South Peninsula Wetland and conversation areas because of the drought situation affecting the Western Cape, leading to the construction of a Desalination plant that cost millions of dollars. The cutting down of the budget and less money allocated for the Lower Silvermine Wetland has a bearing effect on the completion of a process that is supposed to be done effectively after every five years. It also affects residents’ access and leads to tensions between authorities involved in the project. Moreover, there is a drawback to nature conservation in the sense that species that survive within a required cycle may be affected by work done out of the required period.

3.6 Wetland and river maintenance

*“The river is 50 % 50 % co-maintained by the City of Cape Town and the golf club as it passes through the golf club area. The other half is theirs, and the other half is to our maintenance, so how do you divide a water course like that? It's difficult. We started a Maintenance Management Plan in 2013 after the flooding that affected the golf club”.*¹⁶

Respondent 9 articulated how the river is maintained as it flows through the golf course boundaries. There was a river maintenance plan by the golf club, which could not be at the interviewers’ disposal; therefore, information was taken at face value. Despite the unavailability of such

¹⁵**Respondent 3:** 1 Male from Storm Water Integrated Transport. Interviewed on 12/07/18.

¹⁶**Respondent 9:** 1 Homeless male. Interviewed on 18/10/17.

documents, respondent 9 indicated that they have boreholes that they use to irrigate their grounds not to strain the river water levels in periods of drought which can be associated with environmental concern because of resource depletion. Also, it was explained that the golf club refills the reservoirs with borehole water in drought periods. The golf course does not own or maintain the river on their part. According to findings based on observations and interviews, they have their Maintenance Management Plan (MMP). This helps them to maintain the golf course with the river being included. Since they do not do so in conjunction with the City Parks, there is a need for collaborative efforts so that the Wetland to continue to be viewed as a pleasant site of recreation and leisure that is accessible and benefits the surrounding communities.

“We feel that the lack of attention on the Wetland compared to how it was previously taken care off can be a disaster to a wider array of plant and animal species found. Some of them can even be extinct. The continuous growth of tyfar is enough evidence to show that there was a long period the Wetland has been neglected in its maintenance. At the same time with less funding for us as a civil society to facilitate the Wetland maintenance and protection, it is going to be a problem shortly considering how the city works and how we might not be able to chip in using our resources. Therefore we know everything about the Wetland. The incoming of a group of homeless people leaving at the estuary of the Wetland under the bridge controlled by PRASA has made it slightly difficult to maintain and maintain the Wetland”.¹⁷

The narrative provides evidence that City Parks poorly handle the Silvermine river maintenance through the local council and stormwater, who failed to maintain the ditch or bed system that assists in preventing floods. This shows that there is a lack of trust or there is the need for the civil society to play their part in maintaining the Lower Silvermine Wetland, for example by reporting what they feel the City has to work on. Furthermore, this respondent knows all about the Lower Silvermine Wetland where the plants are not growing and where the benches, bins, and signage are depreciating.

Pollution

¹⁷**Respondent 8:** 2 Group members of the Riverine rovers (1 Male and 1 Female participant). Interviewed on 13/10/17.

The Riverine Rovers also felt that homeless people using the lower part of the river for sanitation purposes had polluted the river water, and they feel that the homeless people are the reason why some animals such as the otters do not come to the area anymore. There is a lot of pollution as evidenced by litter in the form of plastics that get caught up in the river and remain stuck on the *Phragmites australis* reeds. This affects the river flow and results in the pollution of the water that animal species live in or and drink from. Pollution also leads to contamination. Therefore, animal species could die, which will, in turn, affect user's access to the Lower Silvermine Wetland.

*“We are unaware of any maintenance and mismaintenance issues in the Wetland all we do is to work on various tasks the City or the law enforcement has asked us to do. Some of these jobs are to clean the beaches of Clovelly and Fish Hoek and the estuary of the Wetland by picking up litter”.*¹⁸

Respondent 7 suggested that he is unaware of any mismaintenance that is occurring in the area about the Silvermine River. The role of some of the homeless people has been to assist in keeping the area by the beach clean and ensuring residents' safety. The respondent further acknowledges that not all homeless people do this. Some get reported and are often kicked out of the area. The homeless do their part at the bottom of the river to ensure that the river is free of litter and pollution by cleaning the beaches. They are tasked and paid by the city, and this is how they can earn a living. This is important to note as it demonstrates how users that use the Wetland are engaging themselves in trying to make sure that it is maintained in a good state on behalf of the responsible authorities who are supposed to be doing the job.

¹⁸**Respondent 7:** 1 Male Golf course personnel. Interviewed on 05/10/17.

3.7 Conclusions

The preceding discussions revealed that different users of the wetland and river have different relations with nature, depending on how they use and relate to it. This chapter has looked at five main groups of users, the Civic group, Golf club, Homeless people, general resident, and Stormwater. The Civic group showed their relation to the Wetland Lower Silvermine Wetland by elaborating the number of years they have been assisting in making sure that it is accessible. They do so by maintaining and conserving Wetland plants and infrastructure. Homeless people's relations to the river are viewed negatively by some users and authorities who claimed that they pollute the environment and pose a threat to other users' access. However, they have the right to access the Lower Silvermine Wetland according to the Constitution of South Africa. Therefore they relate to the Wetland and River by cleaning up at the estuary where they reside. The homeless people also view nature as sacred and traditional, thus needing to be protected from degradation and pollution. The golf club users can be seen as taking away from nature for business purposes and not giving back to it. This is so because the golf club uses water from the river both directly and indirectly to maintain its golf course, and some of its uses have an adverse effect downstream Silvermine. Stormwater authorities are a user category that helps to address maintenance problems which users of the Lower Silvermine Wetland face. Their relation to Silvermine is vital because their intervention can lead to the control of flooding and ensure that there is no silt accumulation and growth of dense vegetation. The authority also ensures that criminal activities and adverse environmental effects that could deprive access for the people of Clovelly and Fish Hoek are prevented. Lastly, residents' relations with nature are mainly associated with how they walk, run, walk with pets and enjoy nature *flora and fauna*, therefore, the study has implications on how they access and use the nature, an issue which the next chapter will pick mainly by looking at authorities narratives relating to how they control and regulate access.

Chapter Four: Authorities and control of Lower Silvermine Wetland

4.1 Introduction

This chapter presents findings on how to access the Lower Silvermine Wetland is derived. To understand how access is derived, it is plausible to see this chapter based on explanations of how the Lower Silvermine Wetland is used as outlined in the previous chapter. The relations nature users have with the Wetland will help understand this chapter. This chapter will shed light on how authorities regulate, control, and maintain the Silvermine. This is because nature users have been affected by fear caused by criminal activities, overgrown vegetation, drug-related issues, depreciating infrastructure, and illegal access affecting access. Therefore narratives from each respondent will bring a storyline aligned to the themes that came out from the main categories that include Wetland maintenance, which helped to understand authorities' mandates about the Wetland. Themes of Regulation and Access came out in terms of who controls, why regulate, what has to be monitored. Therefore this chapter will show how authorities responsible for Wetland control, maintain and regulate it. It will also bring to perspective the idea of enhancing regulation or leaving it the way it is considering the narratives from the previous chapter. Each authorities narrative discussion will emphasize in who regulates, why regulate, and what type of regulation within the Silvermine.



Figure 6 Benefits derived from the Wetland are symbolized through permissible and non-permissible activities is shown on the figure

4.2 Profile of participants

This section provides general background information about the research participants about their gender and occupation, where most of the participants are authorities that maintain and regulate access in the Lower Silvermine Wetland. Participants in this chapter include the Fish Hoek Council, Stormwater Department, City of Cape Town Parks and Recreation Department, Fish Hoek Law Enforcement, Solid and Waste Maintenance Department, Riverine Rovers a Civic group and a resident representative.

4.2.1 Gender

Eight participants took part in the second part of the study, which sought to answer the objectives two and three. They were interviewed at different times, based on their availability. Gender wise, three of the participants were female, and the other five were male.

4.2.2 Occupation

Eight of the participants who took part in the study have different mandates about the Lower Silvermine Wetland, and they have different responsibilities towards the functioning of the Wetland, in line with access, regulation, and maintenance. Six of the participants were authorities that are employed in jobs that have a direct relation to the Wetland in terms of how they regulate access, maintain the Wetland and control access in an area which is regarded as a free for all access area with various prohibitions and accepted activities. The other two were users from the previous chapter, the reason for their inclusion being that they have a right to answer to questions about maintenance and regulation issues as residents who use the Lower Silvermine Wetland and the members of a group that assists with maintenance. There is a need to consider that the latter has fifteen years working on the Wetland, conserving it.

4.3 Silvermine Wetland maintenance

“We oversee the activities of multiple departments and civil societies in our ward we work with them as they will be doing their duties and roles that develop the ward. When it comes to the Wetland Recreation and Parks Department, also known as City Parks, have the full mandate to maintain the Wetland. As the council under Sub-council 19, we contribute money to a project that needs assistance in the ward 64 and the only maintenance problem we had last year about the Wetland was a shortage of cash because of the drought that hit Cape Town”.¹⁹

The narrative above by respondent one explains the mandate and roles of the Fish Hoek Council about the Lower Silvermine Wetland. The Council does not have a direct mandate to the Wetland, but they do work with departments and civil organizations in maintaining it. They can work with any authority that assists in making sure that access regulation is either done or not done or maintained the way it is regulated through permissible and non-permissible activities. Since the Lower Silvermine Wetland is within the ward 64 which is part of Fish Hoek Council, all the work that is to be done should be preceded by consultations with the City of Cape Town Recreation and Parks department. This is done to ensure accountability and transparency, which leads to an open working system. The Council engages with Civil Society groups alluding that both the users and

¹⁹**Respondent 1:** 1 Female personnel at Fish Hoek Council. Interviewed on 03/07/18.

authorities do the maintenance of the Lower Silvermine Wetland. This helps in coming up with regulatory practices. However, about maintenance, the narrative tells us that the council is obliged to channel some funds to projects that are within their jurisdiction. Due to the drought of last year to mid this year, it affected the dredging job that was supposed to be done by the time this study was initiated though it has been done. Therefore, the financial status of the council is fundamental in the maintenance of the Wetland. This is to say; if there are no funds for maintenance, nature is affected, thereby affecting nature users' access.

*“The Lower Silvermine Wetland is one of the sites maintained by the Recreation and Parks department of City of Cape Town because it is highlighted as a site of conservation importance. The Fish Hoek municipality is part of the City of Cape Town. The City of Cape Town is responsible for all aspects of maintenance of the Lower Silvermine Wetland Conservation from flood prevention to balancing the recreation and environmental needs for the area”.*²⁰

The above narrative implies that the Lower Silvermine Wetland is specifically maintained by the Recreation and Parks department of the City of Cape Town. This shows who is responsible in terms of the overall maintenance and regarding how issues to do with the conservation, protection, flood control through the stormwater department and access of the Wetland are to be handled and regulated. Authority is passed through to other authorities through the Recreation and Parks department. Therefore, there is a need to understand that the Lower Silvermine Wetland, as a conservation site, should be conserved to ensure the survival of plants and animals that live in and rely on it. At the same time, conservation would ensure access by residents and their pets, without interruptions and no worry of danger, where danger in this instance, includes flooding. The misconception between recreation needs of residents that access the Lower Silvermine Wetland for the sake of leisure activities and the lack of proper resources such as funding are vital issues to note. There is also a need to ensure that residents and other outside people to derive and access benefits from a well-maintained Wetland.

“We have done the Maintenance Plan of the Lower Silvermine which guides district operational staff regarding the various routine stormwater systems and river

²⁰**Respondent 2:** 1 Female personnel at City of Cape Town Parks and Recreation. Interviewed on 18/06/18.

maintenance and maintenance tasks performed on specific surface water systems such as watercourses and Wetland within the City of Cape Town's jurisdiction. Therefore it makes it easier for us to undertake the primary activities in this regard are sediment and vegetation removal to ensure that the flood alleviation/detention area and gabion sediment retention areas. This will be done through dredging which when done the next cycle of dredging will be in the next five years to allow free water flow in the Silvermine and passing through the Wetland and to make nature look beautiful o the users that use the Wetland for recreation and leisure. However, dredging is not done when the leopard toads are still breeding".²¹

From the above narratives, there are suggestions that the lower part of the Silvermine River be dredged. However, this lower part is a small part, which means that if there is a likelihood of significant flooding, the other part, which is not dredged is likely to be affected by more siltation. Siltation from the Stormwater drain must be lessened by deepening the mouth of the stormwater drains. Furthermore, the dredging which is delayed by breeding of leopard toads shows the need to maintain, at the same time protecting the sustainability of species that survive within nature and depend on it for survival. The fact that dredging will be done in the next five years after the period of this current research shows that environmental maintenance of Wetland has to be sustainable and protected to allow an environment to be used and kept well by users for nature and societies accessing the benefits of a well-maintained Wetland.

²¹**Respondent 3:** 1 Male from Storm Water Integrated Transport. Interviewed on 12/07/18.



Figure 7 showing the outcome when maintenance is done on flood control systems

*“The Wetland is maintained by environmental people we like the law enforcement we only enforce municipal by-laws but whenever there are issues that happen in the Wetland the Fish Hoek ward 64 council has to come to us but over rally they are the ones with the City of Cape town Recreation and Parks who are in charge since it is their core function”.*²²

The narrative tells us that the respondent knows and is sure about the legitimate roles of the area that he presides over. Since the Lower Silvermine Wetland is an environmental space, people with the requisite knowledge and authority according to the law maintain the Wetland. Therefore the overall authority and core function of the Lower Silvermine Wetland is in the hands of City Parks thus City of Cape Town Recreation and Parks, while the respondents, as protectors of the area, enforce laws that minimize and reduce dangers for people who access the area for recreation purposes and for people who misuse it. However, it is significant to note that it is the role of the ward 64 council to engage with the law enforcement to ensure safety within the Lower Silvermine Wetland for the users who access it for leisure and recreation purposes, and to make sure that perpetrators of crime in the areas are caught or prevented from using the Wetland as a crime space as it will affect the residents of Clovelly and Fish Hoek who mainly associate with the Wetland.

“We responsible for all the maintenance in the Wetland but not the watercourse and the detention points that is the stormwater facilities but the area around such as

²²**Respondent 4:** 1 Male staff member from Law Enforcement, Traffic and Coordination. Interviewed on 01/08/18.

pathways and invasive vegetation the later through stormwater. The maintenance of the Wetland is a seasonal thing 2 to 5 years when it comes to stormwater, but for us, the work continues. We have groups such as the Riverine rovers they do help us to as a Civil organization, which is a bit unfair because they do some of our work for us they are helping to clean and transparent. Therefore we have a very good relationship with users that use and access the Wetland”.²³

The above narrative is pertinent as it informs us that the respondent is the one that is responsible for Wetland maintenance focusing on pathways and invasive vegetation clearance. On the other hand, as other respondents were saying such as one that respondent three is key too in Wetland maintenance. Respondent five tells us that Respondent 3 is responsible for managing the watercourse and detention points with its hands sometimes in invasive plants. This is supported when they do dredging of silt, whereby, according to this narrative, there is a timeframe for how work is handled between respondent five and three. It shows us that the latter’s work is seasonal as it doesn’t require day to day commitments but respondent five works all year round. The respondent brings out the fact that his maintenance duties are made easy through the help of other users, such as respondent eight, who is not part of the City departments. It shows us that there are some understanding and unity of purposes in trying to achieve the goal of ensuring that the Silvermine is accessible and maintained without interference and that nature thrives. As much as the working relationship is positive, he feels as if he is unfair at him as the responsible personnel should be doing most of the job which shows that City Parks does have problems that affect their performance of their mandate.

“We do very little in the Wetland things that we do is having green litter bins within the Wetland parking, and periphery is what we do concerning the upkeep of the Wetland. The inside of the Wetland normally falls with TDA which is stormwater and Recreation and Parks they do the maintenance of the Wetland

“We also responsible for the outflow of water out of the Wetland where it is being polluted by people who stay under the bridge the homeless and when the litter deposits and illegal dumping

²³**Respondent 5:** 1 Male staff member at City of Cape Town Parks and Recreation. Interviewed on 19/07/18.

*are entering the sea through the water that comes from the Wetland. And we come in when law enforcement and South African Police Service (SAPS) request us to clean”.*²⁴

The explanation above implies that the role of the respondents in maintaining the Lower Silvermine Wetland nevertheless plays an essential role in terms of getting rid of pollution within the outlet of the Wetland. He acknowledges that the principal authorities who have the full authority over the Lower Silvermine Wetland are City parks and Stormwater departments under the City of Cape Town. This corresponds with the claims made by other participants, thus confirming that the duty of maintenance falls these two departments, mainly City parks. Therefore, whatever is going to be a cause for concern in terms of access and maintenance will be mainly blamed on them and instigated by them.

Furthermore, it is vital to take note of the role undertaken by this respondent who ensures access to green bins for litter disposal by users within the park and for those who park their vehicles at the Lower Silvermine Wetland parking site. This helps to ensure that the environment is kept clean. Another point to note is that the prevention of littering and illegal dumping of trash is key to keeping the water that flows into the sea clean and it flows without hindrances. This shows the efforts of the department of waste maintenance work to mitigate water and land pollution within the Lower Silvermine Wetland.

4.4 Regulation of access

*“I’ll rather see where access is not regulated since people pass through the Wetland from Clovelly to Fish Hoek. I know there are issues and questions of safety and security around the Wetland from the people who leave under the bridge but leaving it open will be ideal. The challenge that we face when access is left open is that with the already depreciating infrastructure such as boardwalks and benches access will not cater for those who will want to rest as they walk with their pets within the Wetland, and the blind might not feel their boardwalks as they are now inseparable from the normal surface”.*²⁵

²⁴**Respondent 6:** 1 Male staff member from Solid Waste Management. Interviewed on 21/06/18.

²⁵**Respondent 1:** 1 Female personnel at Fish Hoek Council. Interviewed on 03/07/18.

From the above narrative, it can be noted that access is not regulated as different groups of user's use the Lower Silvermine Wetland for various reasons such as reflected in the accounts of multiple users in the previous chapter. The first form of use is as a route for people, most probably without cars, to pass through from Clovelly to Fish Hoek and vice versa. It is also accessible by both disabled and non-disabled residents. All these groups use the Lower Silvermine Wetland for recreation and leisure purposes of walking through and their pets. There are fears that an obligation towards safety and security has to be taken into account, considering the contention that homeless people compromise residents' access the area for different reasons as mentioned above. From the respondent's point of view, we can see that there is an emphasis on the need for regulation, which does not tally with some respondents' suggestions. This, therefore, reveals tensions in terms of control of access as it leads to political tension between authorities. The above narration shows the emotional view that, as much as access is open, the facilities such as benches, boardwalks, signposts, and pathways within the area are wearing out. Therefore, they inhibit access and do not cater to older people taking a walk or disabled people such as the blind. This shows us that not regulating access can be a danger for some groups of people in the community because people need to derive benefits from without experiencing harm of any kind.

*“Access is regulated in terms of the list of permissible activities on site. For instance, the area is not available for fishing, so fisherman is not allowed access to the site for fishing. Access is determined by not only recreational needs but the environmental needs of the area”.*²⁶

The respondent, based on her understanding, in her position of authority thinks that access is only regulated on certain activities on the Lower Silvermine Wetland. For instance, she mentions the prohibition of fishing activities in as much as access is not controlled from the respondent 3. As part of the overall mandate of the Wetland authorities, some activities are regulated, and this is done to meet the environmental needs of the Wetland as well as to avert a scenario whereby users access it and derive benefits that damage nature and ecological sustainability. Access to Lower Silvermine Wetland is not only regulated for the recreational needs Clovelly and Fish Hoek residents and visitors, but also the nature needs of the Lower Silvermine Wetland because nature

²⁶**Respondent 2:** 1 Female personnel at City of Cape Town Parks and Recreation. Interviewed on 18/06/18.

has to be taken into account when regulating the activities that occur on it. This is because environment caters for the people's needs; therefore, nature users have to look after nature for it to be able to satisfy the needs of the people that use and enjoy its benefits.

*“Access is regulated by signage that indicates the permissible activities and the activities that are not allowed on the site. Should a user group be undertaking an illegal activity, they will be asked to leave the premises. The responsibility to regulate access is undertaken by the landowner - Recreation and Parks Department, but we are assisted by residents, interest groups, and community watch”.*²⁷

This follows up narrative exhibits further claims on how access is regulated in terms of permissible and non-permissible activities. However, the core aspect of this narrative is not about the activities that are regulated, but it is about how it is done. The use of signage stipulates restrictions as a way of indicating the accepted and unaccepted behavior within the conservation area. This allows visibility for people to see what they can or should not participate when they access the Lower Silvermine Wetland. Illegal users who derive benefits for market or capital access should be held accountable. Therefore it is pertinent to emphasize the need for extra regulation measures, procedures, and bylaws to ensure that activities such as illegal fishing do not happen. However, in coming up with such regulations, there is the need to take into account the views of residents, interested parties, and community neighborhood watch teams from the neighborhoods where the Lower Silvermine Wetland lies. The point under discussion here is that since the area is used by the mentioned parties which have different roles and duties relating to Wetland maintenance, there is a need to consult them. This is important because they all play a part in ensuring that the Lower Silvermine Wetland is well maintained, kept safe and clean and that it benefits every user for both recreational and environmental purposes.

*“Access is currently equal and undisturbed. The area is zoned as a Public Open Space and is freely used by the public. Only user groups that cause environmental damage to the conservation area are not permitted on site. Signage. Access booms to prevent illegal vehicular access by users”.*²⁸

²⁷**Ibid.**

²⁸**Respondent 2:** 1 Female personnel at City of Cape Town Parks and Recreation. Interviewed on 18/06/18.

This narration tells us that access in the area of study is equal and undisturbed. This shows us that every user, regardless of whether they contribute positively or negatively to the Lower Silvermine Wetland, is assured of equal access. Access by people is not regulated, but access to activities that do not follow stipulated rules is governed. At the same time, this access follows the direction of not being disturbed. This tells us that when one is enjoying access into the Lower Silvermine Wetland, he or she has a right not to be disturbed but that does not necessarily mean that when you access it for illegal activities, you would be left alone. You are bound to be asked to leave or face questioning as to why you are using the Lower Silvermine Wetland in a way that destroys nature. One can even end up not being permitted to use the conservation area again. About this narrative, there is now an assertion and suggestion to implement Access booms as a regulatory measure to curb and prohibit illegal vehicular activities by users. This can be a way to minimize degradation of the Lower Silvermine Wetland by motor vehicles as they pollute and have a hard surface that can destroy vegetation. This will require the users who use vehicles to access the Lower Silvermine Wetland by foot as the booms will only allow entry by pedestrians.

*“Minor works on an as-and-when required basis will be necessary involving like repairing wooden boardwalks and low /small wooden bridges, as well as to laterite pathways and signage occurring in this reach. This to ensure safe access for recreational use as well as pedestrian access to cross the Wetland. The bridges and laterite footpaths should be kept free of obstructions and vegetative growth”.*²⁹

In terms of regulation of access, the above respondent agrees with respondent one and eight in terms of the suggestion that certain assets within the Lower Silvermine Wetland need to be fixed or replaced. The respondent's reference to assets such as boardwalks and small wooden bridges shows that the respondent knows what is required within the Wetland, thus enabling them to suggest that maintenance is crucial in the regulation of access. Further to that, it is not just about ensuring access but safe access, which means that when access is granted via particular objects, those object or assets (such as wooden bridges boardwalks and signage) have to be safety approved so that access will not be associated with any danger to residents. Therefore through safe maintenance of pathways that users use to access ensure that they are free from obstructions,

²⁹**Respondent 3:** 1 Male from Storm Water Integrated Transport. Interviewed on 12/07/18.

especially disabled users who use boardwalks for direction. At the same time, freedom from disruptive vegetation can be a barrier to safe access as dangerous animals and criminals can hide and attack users. For example, the growth of *tyfar* vegetation within the Lower Silvermine Wetland has to be maintained as it is affecting plant and animal species breeding, and growth, as well as proper water, flow from upstream through the Wetland to the mouth of the Wetland into the sea, with a possibility of leading to floods because of sediment accumulation in the event of having rains.



Figure 8 showing growth of dense vegetation and nearby houses that are affected by floods

*“Access has to be regulated if they are cases that are reported to us by the residents and the council, but there is access for everyone. There have been two or three incidents of robberies in the past two years in the Wetland. People who break the law through robberies some run away through the Wetland as they can escape easily and hide stolen goods in the Wetland”.*³⁰

From the above narrative, two issues are important to note: the fact that access in the Lower Silvermine area is for everyone and the fact that the same access that is for everyone should be regulated if any concerns are reported to the enforcers of municipal by laws. This is particularly important considering that there have been cases of robbery incidents in the Lower Silvermine Wetland. Therefore with the current set up, it is evident that everyone is free to derive and enjoy

³⁰**Respondent 4:** 1 Male staff member from Law Enforcement, Traffic and Coordination. Interviewed on 01/08/18.

their accessibility benefit from it which shows how nature and people should have a relationship which should not be detrimental to either of them.

On the other hand, considering how individuals break the law and make use of the Lower Silvermine Wetland for illegal activities such as hiding stolen goods and escaping from the police, it is clear that not regulating access can lead to severe problems because criminals are a risk to residents' freedom to access it. They are dangerous since they might rob, injure, or even kill users on the Lower Silvermine Wetland. Therefore regulating access can be a solution to avoid such negative consequences that cause harm to members of the community.

“Everyone knows that the people who stay under the bridge who are regarded as homeless people are under the City’s Street People’s Project they help us curb crime, and there has been a reduction in crime in the past two years. We know there has been information moving around that the homeless people who stay under the Passenger Rail Agency of South Africa (PRASA) bridge deal with drugs but we have raided that place numerous times with sniffer dogs, and we did not find any drugs, but they make the sale. As much as they are helping us that does not give them the right to sell drugs”.³¹

The narrative above takes into account a group of people that are also users in this Lower Silvermine Wetland though there has been a growing concern about them by other authorities who have their mandate on the Wetland too. A mandate that regards this group of people relates to their roles as instigators of crime in the area and as people that are scaring away residents. Dealing dealers increase risk factors, especially if children and the youth are exposed to them. However, the above narration postulates that the same authorities who have negative views on this group of people have the know-how that they are part of a group known as the City’s Street Peoples Project. They assist in the reduction of other criminal activities such as robberies in Clovelly, Fish Hoek, and the Lower Silvermine illegal activities. In trying to debunk the notion of the homeless people as a threat to the societies to a lesser extent, the narrative shows us that the law enforcement officials have raided the homeless people on numerous occasions, but they did not find any evidence of drugs or stolen goods, even after inspection using sniffer dogs. This shows that the

³¹**Respondent 4:** 1 Male staff member from Law Enforcement, Traffic and Coordination. Interviewed on 01/08/18.

narrative which confirms that they sell drugs, but they make sure they sell without disturbing the peace of the two societies and people's access to the Lower Silvermine Wetland. In spite of their efforts in working with law enforcement officials, it does not give them an olive branch to sell drugs which means the law enforcement will always be on their case to ensure residents' access and associated freedoms from access at jeopardy. More so the mention of the homeless people leaving under a Passenger Rail Agency of South Africa (PRASA) bridge should be an indicator that they are staying within the PRASA facilities not City Parks area as much it's still all under ward 64. This is very political in the sense that it raises the question: "how do you advocate for the arrest of people that are not within your piece of land? Overall, the above narrative reveals some of the political dynamics arising from the maintenance of the Lower Silvermine Wetland.

"The homeless people is a different story it is not on the Wetland but under the bridge they sleep they don't do drugs, but some who come there are from Ocean View are said to be the problem. There have been incidences of a raw sewage drain spilling into the Wetland which the disaster prevention department fixed. These are the situation that might affect access, but access is generally open because they are by laws that say you cannot deny people access to open space. They are places that are locked but how could you lock a place like that, but the reason to lock will be keeping criminal elements out of the Wetland, but it's a bit of a challenge. There is a law that prohibits people who take people from the river to sustain their activities because we maintain the river at the same time I have never heard of people who divert water and also the river has been dry because of the drought".³²

The narrative shows us that there might be no possibility at all that the homeless people are a cause of concern based on how the respondent maps out their location which is a contradiction to respondent one's claim but resonates with claims made by respondent four. This informs us that homeless people might not be in a position to disrupt access in the location. In support of his argument, he argues that they use their location for sleeping and that the people who come and visit them are the ones that bring drugs. This shows us that access is threatened by outsiders from Ocean view which further contrasts with other respondents views on the misunderstandings

³²**Respondent 5:** 1 Male staff member at City of Cape Town Parks and Recreation. Interviewed on 19/07/18.

depicted by different authorities' views that allude to homeless people as either posing a threat to access or not. About access, it becomes more evident from the main respondent who maintained that Wetland access is free because you cannot deny access to space, which is open to the public, according to by-laws.

The respondent alludes to the fact that users can be deprived of access because of raw sewage spilling into the Lower Silvermine Wetland. This hurts people's access, as no one would want to be deprived of the benefits of walking or running with your pets in a health hazard environment. He further strengthens his idea of why access can be regulated by keeping criminals away. Thus, almost every authority respondent agrees that something should be done given that there are incidents of criminal activities that do occur in the Lower Silvermine Wetland area. The narration has brought a twist on people's access whereby there are laws that do not allow users to take water from the watercourse for business or commercial use, which conflicts with respondent nine. However, it then shows us an uneven playing field about the protection of commercial users and assessors by the City as the respondent entails that he has never heard about it and also that there has been a drought so how can water be diverted before it reaches the Lower Silvermine Wetland thus political ecology.

"It is challenging to regulate access of the Wetland as it is open however the vagrants who stay under the bridge do sometimes scare away runners with their dogs because there is a concern that they deal with drugs. However, Passenger Rail Agency of South Africa (PRASA) has to deal with them which they did, but they did come back again. Law enforcement is trying to make sure that they are not a threat to the users who access the Wetland. We are trying to make the Wetland more accessible by making it a blue flag Wetland that it was just like other Wetland in ward 64 this will help increase access".³³

The respondent clarifies directly that access is open and its difficulty to regulate it. However, there is an essential focal point to note, which is the need to regulating access because the users who access the Lower Silvermine Wetland are scared of the vagrants (the homeless people that were mentioned earlier). This notion pushes for by laws that ensure that users should be safe and feel

³³**Respondent 6:** 1 Male staff member from Solid Waste Management. Interviewed on 21/06/18.

safe as they need to access the conservation site. This suggestion would be welcome, for example, by those who use the area to run for fitness and health purposes. Which to some who run on it they are running to keep themselves fit for health reasons therefore if fear is now in it nullifies the significance of the Lower Silvermine Wetland being there and impacts their health negatively. The narrative confirms to us once again that it seems as if PRASA is not effective in managing and getting rid of the homeless people as they have the authority over the bridge. However, it becomes political and conflicting in the sense that PRASA has nothing to with the case under study.

Further to that, law enforcement officials work with the homeless people who are perceived as a threat to the community by other authorities and officials that govern and oversee the area. A point to ponder on is the reduction of user access because the Lower Silvermine Wetland is no longer a blue flag zones. This shows that in the past, other people (not only from the two neighborhoods surrounding it) used to access it for leisure but since now the Lower Silvermine Wetland is no longer a blue flag, regular access by other users has reduced. This shows that access and nature or environmental maintenance should complement each other.

“The Silvermine Wetland is free to everyone there is free access. Though there has been a suggestion of permits to use to access the Wetland that’s absolutely nonsense this place has been there for a lot of years because it’s an open place. Residents such as me we use it to walk with our pets and run around it and through it. The only real trouble is about people who stay under the bridge who sell drugs, but we cannot do anything like a civil organization also because they stay under a Passenger Rail Agency of South Africa (PRASA) structure which is the train bridge. If things get worse about criminal activities happening on the Wetland and the breaking of non-permissible activities, considering there is too much control in places like Wetland everywhere, regulation using permits will be key. The Clovelly neighborhood watch is doing very well in managing access and criminal activities from the Clovelly side of the Wetland”.³⁴

³⁴**Respondent 8:** 2 Group members of the Riverine rovers (1 Male and 1 Female participant). Interviewed on 13/10/17.

The narrative tells us that the respondent's perspectives are informed by in-depth knowledge of the historical background of the Wetland and surrounding suburbs. The respondent opposes the prohibition of access since it has been openly accessible for many years. He is against the use of permits to access the Lower Silvermine Wetland, the reason being that he is part of other residents and users from Clovelly and Fish Hoek who access the Wetland through walking alone, walking with pets and running around. This is evidence that the users enjoy the openness of the Lower Silvermine Wetland by deriving recreational benefits from the conservation of Wetland. However, it is a priority not to ignore views on why it is essential to regulate access. The respondent presented the point of view that homeless people are drug dealers that stay close to the Lower Silvermine Wetland, under the bridge; therefore, they are a threat to users. However, PRASA is a private organization; therefore, authorities have no mandate to interfere with the parameters that homeless people reside within, which is a PRASA area. This is a challenge because the homeless are not on the area that is regulated by City Parks but by PRASA.

On the other hand, he suggests that the trouble of prohibiting access can be considered as a last option since a lot of areas of this nature are now restricted. The only hope that he tried to install in his narrative is providing evidence that a neighborhood watch group from the Clovelly side is dealing with safety issues positively thus ensuring that access is not affected by criminal activities. About the respondent, in spite of criminal activities, there is evidence that security matters are a cause for concern and security agents are trying to solve the problem of crime in the Lower Silvermine Wetland. This is significant because it shows that the idea of regulation of access can be furthered.

“On this issue, I’m not sure because I have been accessing the Wetland peacefully my whole life in this area doing the activities I told you before as well as other people too I meet on a regular and irregular basis when I use and access the Wetland. Now there have been a lot of things I am seeing in the Wetland that can make me not want to access it such as the growth of dense vegetation, pathways and boardwalks are now old they need to be fixed. Dense vegetation affects my safety as concerns of drug dealers hiding in them from the law enforcement and South African Police service (SAPS). I’m

*no longer even sure of the good job that our neighborhood watch has been doing in Clovelly. Though I love nature”.*³⁵

This narrative gives the notion that in spite of how long someone has been using a resource and whatever the dangers are associated with that resource they will forever have that love for the environment they are accustomed too. The respondent is very adamant; perhaps due to the long period, she has stayed in the area, accessing the Lower Silvermine Wetland together with other users. This entails that she is happy that access is not regulated. However, she does consider the opportunities that come with the regulation of access because as she fears for her safety as a result of the criminal activities that happen in parts where there is dense vegetation in the Lower Silvermine Wetland. At the same time, the issue of infrastructure depreciation which respondent eight also mentioned is something that nature users are concerned about since infrastructure influences access routes, the availability of places for resting and ability to gain knowledge about nature found in the place.

Furthermore, it is essential to understand that the respondent might not be aware of the maintenance predicaments that led to the deterioration of Wetland infrastructure. One last important aspect that the narrative tried to share is the mere fact that the respondent knows that issues to deal with people who might threaten her safety in the Lower Silvermine Wetland have to be directed to authorities such as Law enforcement officials like SAPS, apart from the neighborhood watch. This gives evidence that instead of regulating access according to her why not these groups of people come into play and are protectors within all sides of the Lower Silvermine Wetland, the Clovelly and Fish Hoek side.

³⁵**Respondent 10:** 1 Female resident. Interviewed on 27/07/2018.

4.5 Conclusions

The detailed chapter focused on issues about Wetland maintenance by various authorities who are responsible for controlling and regulating different activities in the Lower Silvermine Wetland such as flooding, solid and waste, criminal activities, invasive plants, dredging and coordination of events for the Silvermine to be maintained and accessible. The chapter shed light on how the authorities responsible for the mentioned roles and duties regulate access. This is done through permissible and non-permissible activities on the Wetland. It further showed the effect of controlling and not regulating access, considering when some of the nature users engage in illegal activities, thus affecting other users who feel unsafe in the area. Therefore leading to suggestions of other regulatory initiatives with some users stating that access should remain the way it has been regulated as freely accessible but following the permissible and non-permissible activities. This chapter also brought about the conclusion that users still gain and derive benefits from the Lower Silvermine Wetland under the current regulatory framework. This helps in making sure that the Silvermine is conserved. However, control and regulation of the Silvermine do not necessarily mean that all the users derive benefits legally because some users illegally access and benefit from the Lower Silvermine Wetland.

Furthermore, different authorities were sure about who is the overall decision responsible for the control and maintenance of the Lower Silvermine Wetland, which is City Parks. Viewed against this, it was necessary to note that different authorities play an essential role in controlling and maintaining the Silvermine. The stormwater department is responsible for flood control that is required for flood mitigation and making sure users are not affected by floods. The solid waste and management department facilitates the removal of waste in the Lower Silvermine Wetland. Its role is pivotal in that it ensures that Wetland water is not polluted and that nature users access clean conservation area. Law enforcement officials ensure that safety and security are provided on the Lower Silvermine Wetland and to nearby suburbs of Clovelly and Fish Hoek. Its purpose is vital as it makes sure that no harm and threat is brought to users when they access the Wetland and making sure that it is free from criminal activities. Lastly, the Fish Hoek council makes sure that there is coordination of activities between all responsible authorities that participate in conserving the Wetland, controlling it and ensuring users access it according to the constitution of South Africa. As representatives of the people, their role is significant in ensuring that their grievances

and needs are met through working with the other authorities. Therefore the chapter has overall linked the mandates of all authorities in controlling and maintaining Silvermine at the same time bringing about the misunderstandings that arise in achieving the maintenance control and regulation of the Lower Silvermine Wetland.

Chapter Five: Users and authorities way forward for access and regulation

5.1 Introduction

This study sought to investigate how access is provided in the Lower Silvermine Wetland, the forms it takes, and implications for users. To regulate access, it was essential to look at the perspectives of nature users of the Lower Silvermine Wetland. Chapter two discussed different approaches of access and how these prohibit or allow users to derive benefit from a resource. This facilitated the use of the political ecology approach, which involves understanding the context of resource use. Chapter three brought out narratives that explained the perceptions, relationship, and use of the Wetland by various nature users who were regarded as users. Chapter four provided the narratives of authorities in controlling access to Lower Silvermine Wetland and therefore bringing out who regulates why to regulate and what is regulated. This chapter then discusses the conclusions that can be denoted from the findings through the use of objectives coming out of chapter three and four. The section will also establish insights that are specifically directed to users and authorities separately.

5.2 Objective 1 to examine users' perceptions, knowledge, use, and relations with the Lower Silvermine Wetland

The above objective has shown that various aspects are at play when it comes to users who use and access a nature conservation area, such as the Lower Silvermine Wetland. Aspects such as relations perceptions, knowledge and use helped in the understanding that regulation and access issues can be handled with a broader knowledge from the users of nature and how they relate to nature including observing the state of nature and other amenities that form part of the recreational side of the Wetland. Therefore there are a lot of issues that came out and emerged from encountering this objective by respondents. Matters were arising from themes and had to be specially emphasized by the respondents. The respondents all agreed that Wetland maintenance had to improve for users to derive their full benefit from the Wetland. However, there is always a misunderstanding between users as much as they agree on this aspect. The fact that they use the Wetland differently and the benefits that they derive from it are different, and there tends to be a lack of unity between the users in spite of their shared views on the maintenance of the Lower Silvermine Wetland.

Furthermore, from the above conclusion, this objective led to the notion that users encounter different problems. Where access is the ability of users to gain benefits in using the Lower Silvermine Wetland (which is a nature conservation area and recreational area), some users used the Wetland for the purpose of recreational activities and recreational amenities but could not entirely do that because of dilapidating infrastructure and a growing concern of safety issues that are related to the Wetland such as illegal activities and dense vegetation. Some users felt that their use is being hindered by drought; therefore, some have resorted to alternatives so they can still benefit from the river that feeds into the Wetland through the drilling of boreholes thus benefitting from the watercourse that feeds into the Lower Silvermine Wetland. However, this too has its detrimental effect on the environment. Other users ensured that their usage leads more towards assisting in ensuring the cleanliness and conservation of the Wetland area. This was shown by how they had collaborated efforts in setting up bins, plucking of dead flora, and making sure that assets that enable access can be renovated by providing visibility to users. Other users felt that their usage is positive because it resonated with ensuring the cleanliness of the Wetland is observed and practically done.

Knowledge of the Lower Silvermine Wetland by the users is pertinent because from what has been gathered, it is of high importance for users to have a comprehensive understanding of the Wetland, the benefits that they can derive and how they can assist in its maintenance. The Lower Silvermine Wetland has been a victim of disasters that automatically affect the users, mainly due to drought and flooding, which result was critical disasters that most users witnessed experienced and heard about. These impacted the state of the Wetland, affecting the fauna and flora with some plants and animals that were once seen, breed and grew are becoming extinct because of flooding drought and maintenance issues.

At the same time, there is agreement that cycles of disasters such as flooding and drought have happened before, and they will still occur. Some users work with city departments to mitigate the effects of the disasters, and some of them ensure that they developed their maintenance plans for the maintenance of natural causes when hit by disasters such as drought.

Perceptions about the Lower Silvermine Wetland are essential in the sense that they are based on users' ability to interpret and understand. It is also clear that participants in the study have not

ignored what they have noted as requiring attention regarding the conservation of the Lower Silvermine Wetland. One key focal point that emerged from the users interviewed is the perception that funds are insufficient, thus inhibiting improvements in the maintenance of nature and access to the Lower Silvermine Wetland.

That is why some users are making an effort to ensure that they have funds to complement the gap that the authorities are not fulfilling in the maintenance of the Lower Silvermine Wetland. Further perceptions are enshrined on how the users are related to the river and Wetland. It showed that the respondents' relation to the river is based on how they give meaning to the Lower Silvermine Wetland through the assistance they render in its protection and on how they feel affiliated to space. For example, some indicated that they had been part of the Wetland since it was canalized while another user claimed that they co-own the part of the river with the city where it passes through their jurisdiction. Another follow up on perceptions is how a user brings about the perception of danger when he mentions that residents can no longer access some Wetland areas because of the threat posed by criminals. Therefore the conclusion is that users perceive nature differently and with some commonality in some instances in term of their association to the Lower Silvermine Wetland.

5.3 Objective 2 to examine the role of authorities in the regulation of access and maintenance of the Lower Silvermine Wetland.

The objective stated above relates to all authorities that have the mandate to regulate the access and maintain the Lower Silvermine Wetland. In terms of maintenance, it has been noted that different authorities associate themselves with Wetland maintenance, protection, up keeping, and uplifting. This is a prime mandate considering that there are various issues that nature and nature user's encounter; therefore, it becomes appropriate to have all these authorities as part of the solution to highlighted challenges. What also needs considering is concerns about the growth of invasive alien plants, crime related activities, siltation, and infrastructure dilapidation.

In terms of maintenance, it is evident that there is one specific overseer of the Wetland, whose mandate includes the responsibility to conserve and maintain nature in the Wetland space. However, other authorities work with the key authorities about specific tasks such as flood control and managing invasive plants and siltation. This alone exhibits the order of authorities' importance

based on their mandates in the Wetland, which leads to conflicting mandates between the authorities in trying to facilitate undisturbed maintenance and access.

Furthermore, maintenance of this nature reserve has seen a great deal of collaboration between authorities in their quest to make it accessible since it is generally an open space. Viewed against this common understanding, authorities tend to have different views on access and maintenance and how the Lower Silvermine Wetland can be efficiently and effectively maintained and regulated. This is because various authorities have divergent views and perceptions, especially when it comes to the regulation of access. All authorities might have a collaborated consensus on some issues that might need to be regulated, such as criminal activities which are an obstacle to users who access the Lower Silvermine Wetland for recreation. By this, it is essential to understand that in the maintenance spectrum of the Wetland, not all authorities have an understanding of issues that happen there. This is something that has led to the misunderstanding of some problems that are deemed necessary and unnecessary in the regulation of access, such as illegal fishing and depreciated benches. Therefore it is a drawback to users and other users who raised issues that should be attended to.

Lastly, another point is that it is difficult and most probably has become so hard for key authorities to maintain the Lower Silvermine Wetland. Three respondents emphasized the effects that lack of funding has on the area, and this becomes even more significant as some users face similar challenges when trying to engage themselves in ensuring that nature is maintained and conserved. Therefore funding is critical in trying to achieve all objectives that are enshrined in the MMP of the Wetland. Also, funding becomes a hindrance to responsible departments such as the City of Cape Town (CoCT), which is the one that structures budgets and makes decisions on them. Therefore the fact that the maintenance of the Wetland for the past year to present mainly suffered because of budget cuts by the City which was further exacerbated the redirection of funds towards the Western Cape drought, therefore, lesser allocation of funding to some departments.

5.4 Objective 3 to assess how the role of authorities affect different users' access to and claims to the Silvermine Wetland

This objective was informed by the fact that authorities are the ones that have the power and mandate to maintain the Lower Silvermine Wetland, either in a way that does not benefit nature and its users or one that benefits and regulates access. Therefore their decisions, authority, ideas, and laws will be significant in terms of how users' access is affected. Within this objective, the researcher noted that authorities have different ideologies when it comes to access regulation. They want access to remain open at the same time they agree that it should be regulated considering issues that have been raised earlier in chapter four. This being said, it has a ripple effect on users considering that two users are alluding to the fear, dangers, and uncertainties that come with not regulating access. Therefore this gives us a sense of contestation between authorities as their decisions will affect users one way or the other as controlling or not regulating will affect them somehow. By so doing, it is essential for the insights on this to be objective and based on reality.

5.5 Insights

Based on the findings of the study, this section provides insights to all relevant authorities and users, and it also gives input towards future research about the study. The chapter establishes what could be of benefit to the Lower Silvermine Wetland by coming up with various ways in which users and authorities can access the environment and recognizing that regulation is significant for nature and users.

5.5.1 Insights for future research

There is a need for more research on the use knowledge and perceptions of users that use and derive their benefit from nature. This would be relevant in the scholarship access and resource use

There is a need for more studies that would compare and contrast access regulated controlled Wetland and a no regulated Wetland. This will help in understanding the extent of situations that arise from the two scenarios, thus leading to various pros and cons for users of nature and nature itself.

Carolan (2005) assists in bringing the need to consider the above in future research by stating the need to understand multiple meanings of the concept of nature. Nature, in the context of environmental action, can refer to the object of nature's protection, such as the protection of wild animals, plants and landscapes as it is experienced and dealt with in everyday life. Understanding that nature is essential to human bodies and humans is necessary for nature's sustenance.

5.5.2 Insights to users

There is a need for users to come up with an association of users towards the Lower Silvermine Wetland. This association should be able to meet to discuss pressing issues that affect it, mainly issues to do with its maintenance. Considering that two of the users generate funds from donors and from a business that is associated with rich people, it should be a priority for them to give back to nature that they are deriving benefits from.

Users such as residents that are the primary users that access the Lower Silvermine Wetland for recreational purposes should have representatives that represent their grievances to the council, the reason being that the Council attends to them with the requisite authorities that deal with safety and maintenance issues. In this case, the Council acts as the representative of the people's needs to the legislature.

Balzer (2016) suggests that all users should participate in active water maintenance, where water is a key resource in the Lower Silvermine Wetland. Therefore there is a need to strengthen the leadership role of government in its governance functions. This will ensure that users ~~to~~ address ongoing social challenges while adapting to more environmentally friendly practices and ensuring that clean water in the Wetland is not silted and polluted. This will be a recommendation that aligns to the recent Cape Town drought.

According to Ostrom (1990), some conditions help to account for the success of institutions in sustaining the Common Pool Resources (CPR), such as the need to monitor and engage users. In this case, users should all come together and have a collective arrangement on the engagement and governance of the Lower Silvermine Wetland. Since it is a CPR, it helps in facilitating a sense of affiliation to nature since its benefitting everyone involved

Users' contributions are sufficient to bring about social and economic development as much they might not have more prominence in decisions that are taken in the Lower Silvermine Wetland by the requisite authorities that are directly involved in the area as much as respondent five appreciates the work of some of the users. It is, however, prudent to state that users come together to resolve maintenance issues relating to the Lower Silvermine Wetland. This is evident from the study as respondent eight suggested that more has to be done through engaging all users to take the

conservation, protection, and maintenance of the area as a priority. This should be done in such a way that it does not exclude the homeless people and poor black people from neighboring townships.

5.5.3 Insights to Authorities

Regulation of access or non-regulation were key issues in this study; however, after concluding from the narratives, the study gave. Enhancing regulation of access in the Lower Silvermine Wetland might be a solution as some non-permissible measures are being broken. Therefore giving permits for the right of entry while strengthening the control and protection of the Lower Silvermine Wetland through constant security checks or by employing dedicated Lower Silvermine Patrol Police is suggested. This might assist in the urgent response to the user's safety

Fish Hoek council could set up crowdfunding from the residents of Clovelly and Fish Hoek to upgrade dilapidated Lower Silvermine Wetland infrastructure and ensure that there are always funds to solve any conservation threats to the ecosystem in the Wetland. The reason being that Surkin (2011) argues that in the absence of meaningful and tangible benefits to the local people, natural resource governance can be abstract and the local people will lose interest in natural resource maintenance. Greater and meaningful democratization about natural resource governance is fundamental to sustainable natural resource maintenance. Respect for human rights, participation, and accountability are prerequisites for a sustainable natural resource that benefits local people Surkin (2011). According to Surkin (2011), when local people are made aware of their rights, it empowers them to engage in natural resource maintenance and access nature without fear and access nature that is well maintained and protected.

All companies/entities that have their cables pass through the cable bridge should be engaged so that they assist in the maintenance and development of the Lower Silvermine Wetland. When they work on their cables, they are damaging nature and their cables, in passing through a conservation area, are putting it at risk of fire.

There is a need to ensure that safety concerns are addressed within the Wetland since criminal activities and illegal activities are happening there. It is important to emphasize that homeless people's participation in the Street Peoples Project allows them to participate in curbing criminal

activities in the suburbs of Clovelly and Fish Hoek. A major concern which was noted was that residents are being deprived of their right to safe access and usage of the Lower Silvermine Wetland due to criminal activities. Therefore there is a need for collaborative efforts by Law Enforcement officials and the neighborhood watch groups of Clovelly and Fish Hoek, to strengthen security and neutralize or eradicate the illegal activities happening in the Wetland.

The creation of a Disaster Maintenance Plan (DMP) is essential in the case of the Lower Silvermine Wetland rather than merely a Maintenance Management Plan (MMP) only. The reason why this is key is that users and authorities perceived the history of drought and flooding as recurrent. Therefore, because disasters are a threat to human life and the natural order of the ecosystem, there is need to have a disaster maintenance plan of the Lower Silvermine Wetland for the sake of reducing the impact of the disasters when they do happen. This enables preparedness for disasters and allows for better response and recovery mechanisms to the disasters. Disaster risk will be mitigated the nature and lives of human and animal species in the Wetland will be saved. A Framework known as Disaster Risk Reduction (DRR) will, therefore, be required as it strengthens the system that aids recreation in the area

The issue of PRASA as much they were not interviewed in the study, is essential as they were mentioned in respondents' narratives. It informs a very insightful addition to the study because they are the owners or custodians of the jurisdiction and the infrastructure that the homeless people stay, which is the railway line bridge. This is to say that PRASA as a separate department for the sake of peace, safety and environmental protection from land and water pollution in the Lower Silvermine Wetland and surrounding suburbs. It has to facilitate the safe removal of the homeless people under the bridge since it has full authority over that space. However, it becomes a challenge as these homeless people are citizens of the country and have a right to shelter, but they are staying there because they have no shelter. Furthermore, they have a right to trespass nature as enshrined in the Constitution of the Republic of South Africa.

Lockie (2015) asserts that "Legal maintenance of natural resources and meaningful action to address poverty and other forms of inequality need to be accepted as being in the long-term self-interest of communities, businesses, and institutions." This means that authorities need to come together to come up with a legal framework that puts into consideration the interests of the

community where this type of space has to be secured for their safety to ensure easy access without fear or any danger of their lives.

There is a need to ensure that the Legal framework that is going to be formulated and implemented should be informed by the knowledge and perceptions of the users. Therefore the authorities, despite having a direct mandate to the Wetland, have to base their policy frameworks on the user's narratives. This will enable them to draft a working framework that will transform the interface of the Lower Silvermine Wetland just as Surkin (2011) explains that the International Union for Conservation of Nature (IUCN) asserts that effective and participatory governance is essential for biodiversity protection and sustainable development. This shows engagement and letting the narratives of the users participate in the buildup of the framework. Therefore this framework has to draw its supporting strength from the Environmental Maintenance Acts of South Africa that will help to link what the users are saying and the law.

5.6 Overall conclusions of the study

The study brought out insights based on three objectives that guided the study. Insights were brought into perspective to help map the way forward from both users and authorities' narratives. This is because the wetland and the river, to a certain extent, are sources of environmental, social, economic and political livelihood, yet little is being done to guarantee that relations with users continue into distant future because of how different users are claiming silvermine. This will lead to misuse and deterioration of nature. Although there are indications that each user had a fair amount of contribution towards the maintenance of the Silvermine River and Wetland, more must be done to create an environment where the river and Wetland survive without any disturbances. Therefore users relations, knowledge, and use of the wetland need to be prioritized in coming up with regulatory practices that have positive implications for both users and nature.

Authorities need to consider appropriate access for different users to derive the benefits that they need from the natural space. From the study, this is done through permissible and non-permissible activities on the Wetland. Therefore there was a need to ensure that the Lower Silvermine Wetland is accessible and regulated for the benefit of the users and the Wetland itself. At the same time, the users have to enjoy the benefits from the Wetland that is controlled such that it does not deprive them their access rights. This is enshrined in the Constitution of South Africa and supported by

scholars, including Ostrom (1990), Ribot and Peluso (1993). Homeless people also have the right to access the Lower Silvermine Wetland as it should be reasonably accessible to multiple users. However, the study brought to light that illegal access through fishing into the Wetland has been happening and issues of safety, security, and maintenance of the Wetland are becoming obstacles to access. Therefore an improvement in regulation practices that are in place already will be required. Wetland maintenance, relations, and development of the Lower Silvermine are pertinent for the future generation.

Access as a concept about the study contributes to scholarship has brought the knowledge that users should be allowed to derive benefits from a resource in spite of measures attached to a specific commons area in this case, Lower Silvermine Wetland. It has also added value in how users with capital can benefit from a resource more than others, which shows that as much they can be different users benefiting from a resource some derive more benefits than others. The approach has further enhanced the study in the sense that they are users who tend to derive benefits illegally as much as they have a right to access the Wetland. Benefits derived from breaking non-permissible activities are said to have been derived illegally. Furthermore, whether a regulation has led to the thinking that barriers can be a way of controlling access, which was one of the respondent's suggestion over incursions in the Wetland. Lastly, the issue of how some authorities and some users think that a specific group should not access the Lower Silvermine Wetland. The approach has managed to show that commons are not only used by specific users (such as middle class) but by diverse people since it is a property that should benefit every citizen as enshrined in the Constitution of the Republic of South Africa. Therefore the stated conclusions from the objectives of the study with key themes in them have facilitated insights that are probably of significance to the Wetland nature and mature users. The research has therefore highlighted through the case study, some of the challenges posed for users with different backgrounds to a natural resource common, Lower Silvermine Wetland.

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APPENDICES

Appendix 1: Ethical clearance



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26 April 2018

Confirmation of Research Ethics Approval: Tafadzwa Dzingwe [Soc2018/04]

This is to confirm that Tafadzwa's research proposal, Access Implications of Regulatory Practices, under the supervision of Assoc Professor F. Matose, has been reviewed by the Sociology Department. Mr Dzingwe presented his proposal to the Department on 18 April 2018.

The Department is satisfied that the research carries no significant risk of harm to human subjects. We are further satisfied that appropriate informed consent and confidentiality/anonymity/data protection mechanisms are in place.

It is a condition for the acceptance of Mr Dzingwe's proposal that he complies consistently with strict ethical standards. This will entail proceeding only on the basis of the consistently informed consent of interviewees and will require regular monitoring of ethical issues which may emerge as the project develops.

Please contact the Department should you have any questions or concerns.

Kind regards,

Signature Removed

Lorraine Valentine

Appendix 2: Interview questions on Access implications of regulatory practices in the Silvermine Wetlands

1. What does the Silvermine Wetland represent to you?
2. What benefits are you accruing from accessing the Silvermine Wetland?
3. How is access in the Silvermine Wetland regulated?
4. Whose responsibility is it to regulate access to the Silvermine Wetland by different stakeholders?
5. What do you think is the role of Authorities in the maintenance of Silvermine Wetland?
6. How is the role of Authorities in the maintenance of the Silvermine Wetland affecting different stakeholders' access to the Wetland?
7. Are there any regulatory practices being implemented to regulate access to the Silvermine Wetland by different stakeholders?
8. If so, who are implementing these regulatory practices?
9. What do you suggest should be done to allow equal and undisturbed access to the Wetland by all the stakeholders?

Appendix 3: Interview question on Stakeholders relation, use, perception and knowledge of the Lower Silvermine Wetland

Riverine Rovers

1. What is your relationship, use, knowledge, and perception of the Silvermine Wetland?
2. Is it possible that there is a chance of flooding within the nearby suburbs when there are heavy rains because of high levels of siltation in the Wetland?
3. What can be done in trying to get the work on conserving the Wetland done?
4. What are your thoughts on the regulation of access in the Wetland
5. Should a regulation of access be improved or not

General resident

1. What are the people's relationship, use, and perception of the wetlands?
2. As the resident association chair do you think all residents are contributing towards conserving the wetland?
3. Do you think that the residents are aware of a flooding threat to their homes if continuous siltation occurs in a period of heavy rains?
4. What do you think should be done by your office in conserving the Wetland
5. What are your thoughts on the regulation of access in the Wetland
6. Should a regulation of access be improved or not

Golf course

- What is your relationship with the river that flows through Silvermine wetlands?
- What are you doing to prevent a flood should the water rise due to the build-up of silt near the end of the river?
- Are you involved in any projects that help sustain or maintain the wetlands?

Homeless

- What is the relationship you have with the river?
- How do you use the Wetland?
- Are you accessing the Wetland freely?
- What are some of your thoughts on whether the city is doing enough to take care of the area?

Appendix 4: Participants' information

Respondent Number	Gender	Date of Interview	Occupation
Respondent 1	Female	03/07/18	Fish Hoek Council
Respondent 2	Female	18/06/18	City of Cape Town Parks and Recreation
Respondent 3	Male	12/07/18	Storm Water/Integrated Transport Portfolio
Respondent 4	Male	01/08/18	Law Enforcement, Traffic, and Coordination
Respondent 5	Male	19/07/18	City of Cape Town Parks and Recreation
Respondent 6	Male	21/06/18	Solid Waste Management
Respondent 7	Male	05/10/17	Golf course
Respondent 9	Male	18/10/17	Homeless person
Respondent 8	Group (Male)	13/10/17	Riverine rovers
Respondent 10	Female	27/07/18	Resident